IBM ThinkPad

SelectaDock III

User's Guide

IBM ThinkPad

IBM

SelectaDock III

User's Guide

Note

Before using this information and the product it supports, be sure to read the general information in Appendix C.

First Edition (September 1997)

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Electrical Safety Notices



DANGER

Before you install or remove the option, unplug the power cord.



Power is controlled by the power switch of the computer. In an emergency, turn off the power by unplugging the SelectaDock III power cord. The electrical outlet should be near the SelectaDock III and should be easily accessible.



To avoid a shock hazard:

Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.

The power cord must be connected to an outlet that has been properly wired and grounded according to your local wiring rules.

This equipment must have an earth ground.

Apparaten skall anslutas till jordat uttag när den ansluts till ett nätverk.

Jordet stikkontakt skal benyttes når apparatet tilkobles datanett.

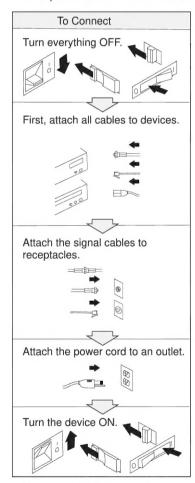
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Any equipment to which this product is attached to must also be connected to an outlet that has been properly wired and grounded according to your local wiring rules.

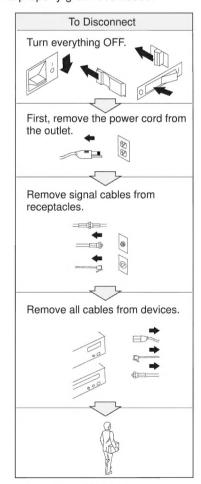


DANGER:

Electrical current from power, telephone, and communication cable is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving, or opening the covers of this product or attached the devices. The power cord must be used with a properly grounded outlet.



Note: In the U.K., by law, the telephone line cable must be connected after the power cord.



Note: In the U.K., by law, the power cord must be disconnected after the telephone line cable.

Important Points (Read This First)

When you use the SelectaDock system for the first time, note the following important points:

Make sure that your ThinkPad is a PCI bus computer system.

The SelectaDock system supports only PCI bus computers. It does not support ISA bus computers, even though the SelectaDock Base Model I supports both PCI and ISA bus computers.

Supported ThinkPads are:

- ThinkPad 760E, 760ED, 760EL, 760ELD, 760XD, and 760XL
- ThinkPad 765D and 765L
- ThinkPad 770

The ThinkPad 760 and 765 user must do the following before docking it to the SelectaDock system for the first time.

- **1.** (Windows 95 user) Copy the INF files. (Refer to "Preparing to Use the SelectaDock System (ThinkPad 760/765)" on page 1-8.)
- 2. Update the system program (flash BIOS).
- 3. Install the Battery Check Utility (ThinkPad 765 user only).
- 4. Update the ThinkPad Configuration program.
- 5. Update PC Card Director .
 - Refer to *Program Installation Guide* to update or install these programs.

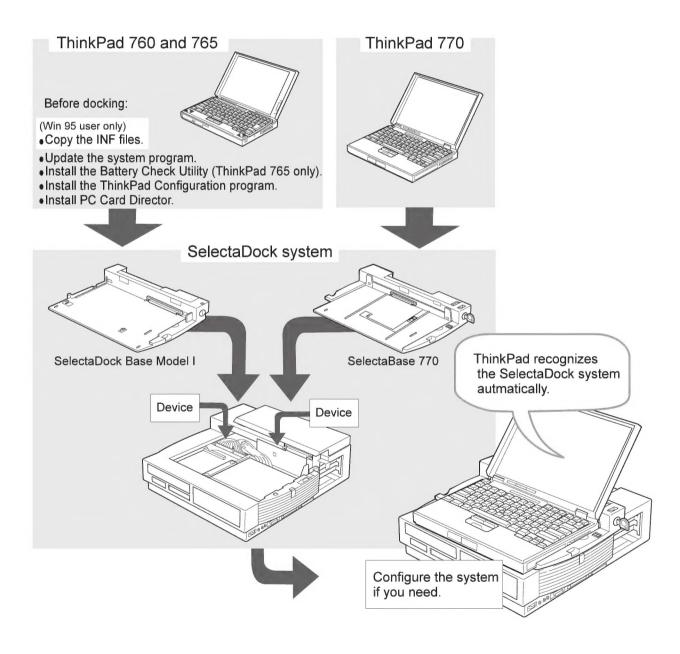
Power on your ThinkPad after docking it to the SelectaDock system for the first time.

If the operating system in your ThinkPad supports hot and warm docking , this operation enables the hot and warm docking.

PC Card Director is a program to support PCMCIA Rel 2.1.

Hot docking means docking while the computer is operating or in standby mode. Warm docking means docking while the computer is in suspend mode.

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Chapter 1. Introduction

Highlight -

This chapter describes the overall functions of the SelectaDock III system. Read this chapter before you use the SelectaDock III system.

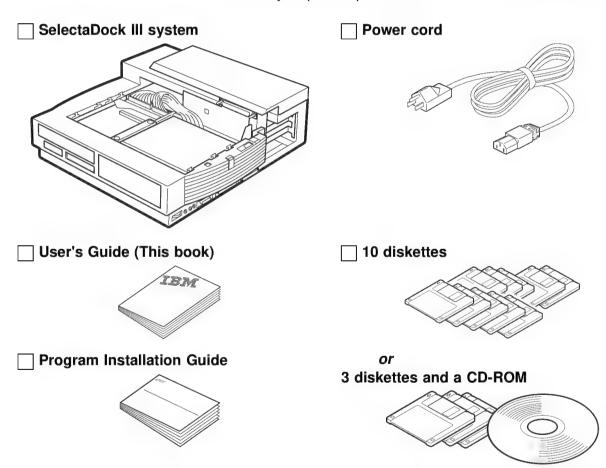
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Checking Your Items

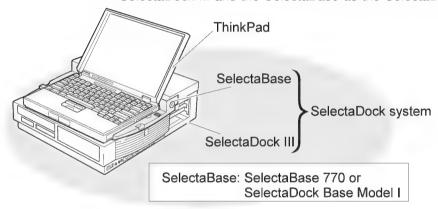
When you unpack your SelectaDock III system, check to be sure that you have the following items. If any item is missing or damaged, call IBM or your point of purchase.



SelectaDock III Highlights

The IBM ThinkPad SelectaDock III system is designed to expand the functions of your ThinkPad computer.

Hereafter, we call the SelectaBase 770 or SelectaDock Base Model I is referred to as the SelectaBase, and the combination of the SelectaDock III and the SelectaBase as the SelectaDock system



Supported Systems

You can use the SelectaDock III system with following ThinkPad computers:

IBM ThinkPad 760E, 760ED, 760EL, 760ELD, 760XD, and 760XL

IBM ThinkPad 765D and 765L

IBM ThinkPad 770

The SelectaDock III system works with the following combinations:

| SelectaDock System Combination | | ThinkPad 760E/760ED ThinkPad 760EL/760ELD ThinkPad 760XD/760XL | ThinkPad 765D ThinkPad 765L | ThinkPad 770 |
|--------------------------------|-----------------------------|--|--------------------------------|--------------|
| SelectaDock III | SelectaBase 770 | No | No | Yes |
| | SelectaDock Base Model I | Yes | Yes | No |

Note: The SelectaBase 770 and the SelectaDock Base Model I are port replicators. Either of them provides you the full docking system functions with this SelectaDock III. The SelectaDock III system needs one of these SelectaBases. Which one you need depends on the model of your ThinkPad computer.

Features of the SelectaDock III system

When you dock your ThinkPad to the SelectaDock system, your total system will have the following additional features.

Two PCI/ISA shared slots and one PCI slot
A half height bay for IDE or SCSI device
An UltraBay II tray for one UltraBay II device
An UltraBay tray for an UltraBay device (option)
Two USB connectors
Two (type-II) PCMCIA slots
One SCSI connector
Hot and warm docking support
Capability for sharing the SelectaDock system
Security for the ThinkPad computer, devices inside the
SelectaDock system and the SelectaDock system itself.

Note:

Attaching or detaching your computer to or from the SelectaDock system is called *docking* or *undocking*.

A swappable device for the ThinkPad 770 computers.

A "ThinkPad 760 UltraBay Options Tray for SelectaDock III" can be purchased separately.

A swappable device for the ThinkPad 760 computers.

SelectaDock system Function According to Operating System

The following table shows the relationship between functions of the SelectaDock system and the operating system in your ThinkPad computer.

| Table 1-1. Matrix of the | he Function and C | Operating System | | | | |
|--------------------------|-------------------|------------------|----------------|----------------------|---------------------|---------------------|
| Function | DOS | Windows 3.11 | Windows 95 | Windows NT (3.51) | Windows NT (4.0) | OS/2 Warp/Marlin |
| ThinkPad 760E, 760 | ED, 760EL, 760 | DELD, 760XD, 7 | 760XL, 765D, o | r 765L | | |
| EZ-SCSI | Yes | Yes | NA | NA | NA | NA |
| PCMCIA Rel. 2 | Yes | Yes | Yes | Yes | Yes | Yes |
| CardBus | No | No | No | No | No | No |
| ThinkPad 770 | | | | | | |
| EZ-SCSI | Yes | Yes | NA | NA | NA | NA |
| PCMCIA Rel. 2 | Yes | Yes | Yes | Yes | Yes | Yes |
| CardBus | Yes | Yes | Yes | No | No | No |

Note:

The Option Diskette for SelectaDock III contains EZ-SCSI for DOS and Windows 3.11.

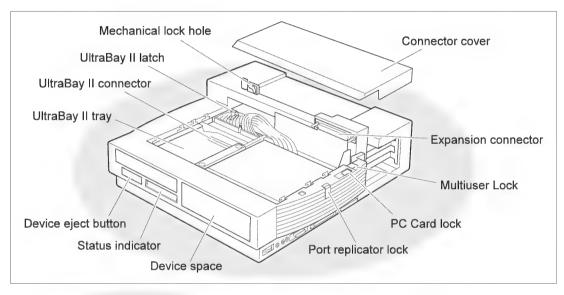
PC Card Director supports PCMCIA Release 2.1.

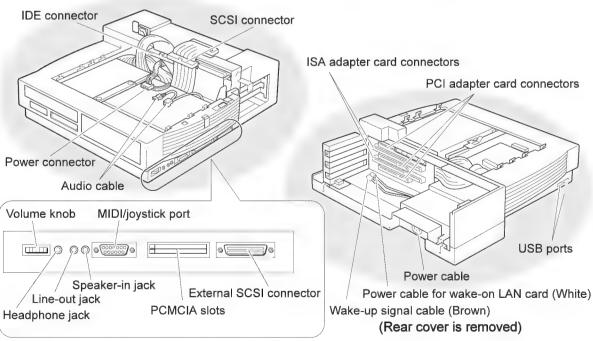
Windows NT 3.51 native support.

PCMCIA Release 2.1 support by preload.

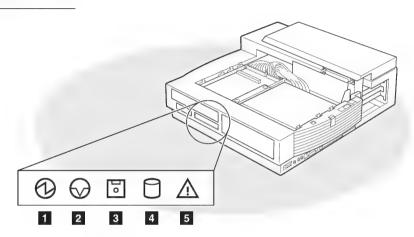
CardBus support by preload.

Location





Status Indicators



| | Symbol | Indicator Name | Meaning | |
|---|-----------|-----------------------|--|--|
| 1 | O | Docked | The computer is correctly docked with the SelectaDock system. | |
| | 0 | Power On | The computer power is turned on. Note: The "Docked" indicator changes to the "Power-On" indicator when the computer power is turned on. | |
| 2 | \otimes | Suspend Mode | The computer is in suspend mode. | |
| 3 | 10 | Diskette Drive in Use | The diskette drive in the computer or the UltraBay II is being used. | |
| | | | Note: When an external diskette drive is used, the indicator on the IBM ThinkPad FDD External Attachment Kit turns on. | |
| 4 | 0 | Hard Disk in Use | The IDE device in the SelectaDock system or in your computer is accessed. | |
| 5 | <u> </u> | Attention | Turns on or blinks to alert users about an operation. | |

Preparing to Use the SelectaDock System (ThinkPad 760/765)

The ThinkPad 760 and 765 user needs to copy the INF files. Do the following:

Note: Check which version of Windows 95 you have before copying the INF files:

- 1. Double-click on **My Computer**, **Control Panel**, then **System**.
- 2. Note the version of the Windows 95 in the System field. For example, 4.00.950 or 4.00.950 B.
- 1 Insert the SelectaDock III Option Diskette into the A drive.
- **2** Open the Windows command prompt screen.
- 3 Type CD C:\WINDOWS\INF
- **4** Overwrite the INF files with the following command: COPY A:\xxxx\ .INF C:

Note: If the Windows 95 version is 4.00.950, type 95 instead of xxxx.

If the Windows 95 version is 4.00.950 B, type 95 B instead of xxxx.

- **5** Press Enter.
- 6 Reboot the computer to make the change effective.

The ThinkPad 760 and 765 user also need to do the following:

- **1** Update the system program.
- 2 Update the ThinkPad Configuration program.
- 3 Update PC Card Director.

Refer to the Program Installation Guide to update or copy these programs.

The following diskettes or CD-ROM is supplied for updating these programs:

For diskette installation:

SelectaDock III Option Diskette System Program Service Diskette for VGA/SVGA System Program Service Diskette for XGA IBM ThinkPad Utility Diskette for Windows 3.1 IBM ThinkPad Utility Diskette for Windows NT IBM ThinkPad Utility Diskette for Windows 95 IBM ThinkPad Utility Diskette for OS/2 Battery Installation Check Utility Diskette IBM ThinkPad PC Card Director for Windows NT 4.0 IBM ThinkPad PC Card Director for OS/2 and Windows 95

For CD-ROM installation:

SelectaDock III Option Diskette System Program Service Diskette for VGA/SVGA System Program Service Diskette for XGA ThinkPad Utility Program and PC Card Director (CD-ROM)

Note:

You can get the following diskettes from the Internet URL http://www.us.pc.ibm.com/support/thinkpad/thinkpad support.html

IBM ThinkPad Utility Diskette for DOS, Personalization IBM ThinkPad PC Card Director for DOS and Windows 3.1

ThinkPad Configuration Program

The IBM ThinkPad utility diskette contains the ThinkPad Configuration program. Using this program, you can easily set up and customize the built-in devices, such as the parallel port or infrared port.

The ThinkPad Configuration program also provides the Device Configuration Management System which automatically detects any system resource conflict (such as IRQ, DMA, I/O address, or memory conflict). Therefore, the ThinkPad Configuration program makes it easy for you to install a new device or software.

IBM ThinkPad PC Card Director

PC Card Director is a utility program to make PC Cards easy to use by:

Turning on and setting up a PC Card when you insert it in a PC Card slot.

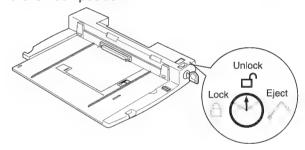
Showing what type of PC Card is in your computer. Allowing you to register an application program for a particular PC Card and starting the program automatically when the card is installed.

Attaching the SelectaBase to the SelectaDock III system

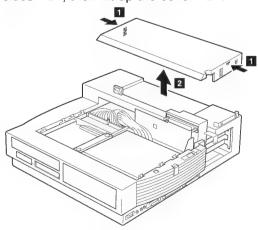
The following procedure describes how to attach the SelectaBase to the SelectaDock III system.

Note: The picture shows a SelectaBase 770 port replicator. To attach the SelectaDock Base Model I to the SelectaDock III system, do the same procedure.

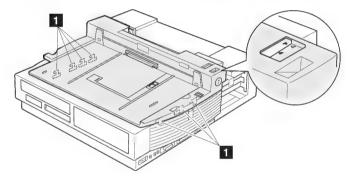
1 Make sure that the security key on the SelectaBase is set to the Unlock position.



2 Remove the connector cover by pulling out the hooks on both sides 1; then lift up the cover 2.

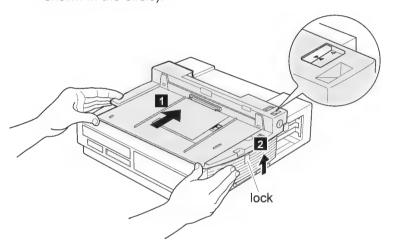


- 3 Place the SelectaBase on the SelectaDock III system.
 - a) Align the guides of the SelectaDock III 1 with the slits on the underside of the SelectaBase.
 - b) Place the SelectaBase on the SelectaDock III so that the first triangle on the SelectaBase lines up with the triangle on the SelectaDock III (as shown in the circle).



4 Slide the SelectaBase to connect to the SelectaDock III 1; then lock the SelectaBase to the SelectaDock III by sliding the lock upward 2.

Note: Make sure that the second triangle on the SelectaBase lines up with the triangle of the SelectaDock III (as shown in the circle).



5 Attach the connector cover to the SelectaDock system

You have completed the attachment of the SelectaBase to the SelectaDock III.

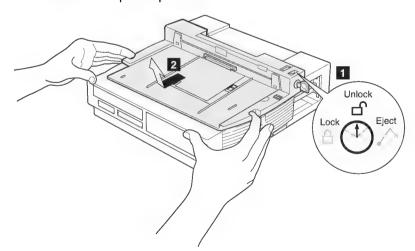
Detaching the SelectaBase from the SelectaDock III system

To disassemble the SelectaDock system, do as follows:

Note: The picture shows a SelectaBase 770 port replicator. To detach the SelectaDock Base Model I to the SelectaDock III system, do the same procedure.

- **1** Remove the connector cover.
- **2** Disconnect all peripheral cables from the SelectaDock system.
- **3** Disconnect the power cord from the SelectaDock system.
- 4 Unlock the port replicator from the SelectaDock III system by sliding the lock downward.
- 5 Set the security key to the unlock position 1; then release the port replicator 2.

Note: Use the finger hole as shown in the figure when you release the port replicator.



6 Attach the connector cover to the SelectaDock III system

You have completed disassembling the SelectaDock system.

Docking the ThinkPad to the SelectaDock system

This section describes how to dock and undock the ThinkPad computer to or from the SelectaDock system

Notes:

- 1. The computer you are going to dock must be a PCI bus architecture computer. If you accidentally dock an ISA bus computer, the SelectaDock III warns you with the Attention indicator and beeps.
- 2. For the ThinkPad 760 and 765 with Windows 95 user: You need to copy the INF files and update the system program before you first dock your computer to the SelectaDock III system. **Preparing to Use the SelectaDock System (ThinkPad 760/765)" on page 1-8.

There are three mode when you dock or undock the ThinkPad to the SelectaDock system as follows:

Cold docking or undocking:

Docking or undocking while the computer is powered off.

Hot docking or undocking:

Docking or undocking while the computer is operating or in standby mode.

Warm docking or undocking:

Docking or undocking while the computer is in suspend mode.

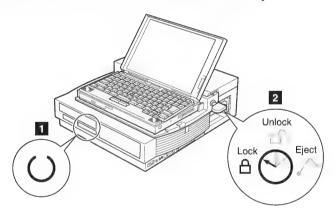
Note: Hot or warm docking or undocking is supported by only Windows 95. If you use the other operating system, cold dock or undock your computer.

Cold Docking

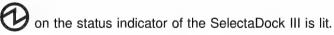
To dock your computer to the SelectaDock system in cold mode, do as follows:

- 1 Turn off your computer.
- **2** Disconnect all peripheral devices cables from your computer.

- 3 If you want to protect the drives under the keyboard after docking, set the lock on your computer. (See the computer user's guide for the procedure.)
- **4** Plug the power cord in the power connector of the SelectaDock III, and then into an electrical outlet.
- **5** Dock your computer to the SelectaDock system. (See the manual of the SelectaBase.)
 - a) Check that the Docked indicator 1 is lit.
 - b) Turn the security key to the locked position 2 if you want to secure the devices. Then remove the key.



6 Turn on your computer, using its power switch. The SelectaDock system powers on automatically; then the computer starts to boot. Check that the Power On indicator



You have completed to dock the ThinkPad to the SelectaDock system.

For Windows 95 user, continue to the next.

Windows 95 begins to check the status of the SelectaDock system and restarts a couple of times.

Follow the instructions that appear on the screen.

During this operation, Windows 95 creates a configuration profile for the SelectaDock system named $\mathbf{Dock}\ \mathbf{x}$.

Notes:

- a) x can be any number.
- b) The message "Version Conflict" might appear on the screen. Answer Yes to the prompt "Do you want to keep this file?."
 - 7 In Windows 95, double-click on My computer, Control Panel, and System.
 - 8 Click on the Hardware Profile tab.
 - **9** Make sure the new profile, **Dock x**, is created. Select the Device Manager tab and make sure that the new devices are displayed in the device list.
 - If **Dock x** is not created, repeat from step 1 on page 1-15.

Note: If the symbol "!" or "X" appears next to a device symbol, a resource conflict might have occurred. For the system resource assignment, go to "System Resources Assignment" on page 3-9.

Once the new hardware profile **Dock x** has been created, you can dock or undock your computer in hot or warm mode.

Cold Undocking

This procedure describes how to undock your computer from the SelectaDock system when the computer power is turned off.

- 1 Turn off your computer.
- **2** Turn the security key to the eject position to eject the computer.
- 3 Grasp the computer and lift it out.

You have completed the cold undocking.

Hot or Warm Docking for Windows 95

Docking

In the boot process after cold docking, the operating system tries to set a configuration including the devices installed in the SelectaDock system. After the configuration has been set up, you can dock your computer in hot or warm mode. The SelectaDock system devices immediately become available to your computer.

Undocking

To use hot or warm undocking for Windows 95, do the following:

1 Request the eject by either of the following:

Select Eject PC in the Start menu.

Turn the security key to the eject position and release the

An eject request is made to the operating system. Considerable time may be required to complete the eject process.

Note: To see if the eject process has completed, click on Start. If Eject PC appears, undocking is still in progress. If not, the eject process has completed.

2 When you hear the beep sound, turn the security key to the eject position again to eject the computer from the SelectaDock system.

Note: If the operating system rejects the request, messages appear on the screen explaining the reason. In this case, use cold undocking.

Chapter 2. Installing Options

Highlight -

You can expand the capability of your ThinkPad by installing options. This chapter explains how to install the options.

After you complete the installation of the options, go to Chapter 3 to configure your system.

This chapter contains:

| The onapier contains: | |
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| Installing a PCI or an ISA Adapter Card 2- | 13 |
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| Using the MIDI/Joystick Port | 18 |
| Connecting External SCSI Devices | 20 |

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Handling Internal Options



DANGER

Before you install or remove the option, unplug the power cord.

CAUTION -

The CD-ROM drive uses a laser system. To ensure correct use of this product, carefully read the manual that came with the CD-ROM drive and keep the manual for future reference. If the unit requires maintenance, have it serviced by authorized personnel.

Use of controls, adjustments, or procedures other than those specified may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not open the enclosure.

Attention

Do not open the static-protective package containing the option until you are instructed to do so. Static electricity can damage the option.

When you are instructed to install the option, observe these precautions as you open the static-protective package:

Touch the static-protective package containing the option to a metallic portion of the SelectaDock III for at least 2 seconds. This action reduces the static electricity from the package and from your body.

Do not touch any exposed circuitry on the option.

Prevent other people from touching the option.

Limit your movement. Movement can cause static-electricity buildup.

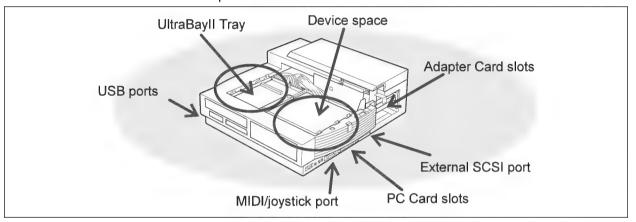
Always handle the option carefully and by its edges.

If you must put the option down after it has been removed from the package, place the option on the static-protective package on a level surface. Do not place the option on a metal table.

If the SelectaDock III system has a dust cover over the UltraBay, remove it.

Supported Devices

The SelectaDock III system has an UltraBay II tray and device space to install an optional drive. In the back are adapter card slots. In the side are an external SCSI port, PC Card slots, and a MIDI/joystick port.



UltraBay II Tray

The UltraBay II tray accommodates the following options:

Diskette drive (FDD)

IDE devices

- CD-ROM drive
- Hard disk drive (HDD) with attachment

Each drive should be compatible with the UltraBay II of the ThinkPad 770 series computer.

Attention -

Only one diskette drive can be attached to the SelectaDock III system at the same time. When an external diskette drive is attached, do not install a diskette drive in the UltraBay II. Trying to operate with more than a single drive can destroy diskette data.

Note: If you want to install the UltraBay device used in the ThinkPad 760 computer, replace the UltraBay II tray with the ThinkPad

760 UltraBay Options Tray for SelectaDock III, which can be purchased separately.

Device Space

The SelectaDock III system accommodates the following options in the device space.

IDE drive

- CD-ROM drive
- Hard disk drive

SCSI drive

Before installing any drive, examine the connector on the SelectaDock III system and connect the correct drive.

Adapter Card Slots

The SelectaDock III system has slots to accommodate the following types of adapter cards:

Slot 1: Full-size PCI adapter card (upper connecter)

or

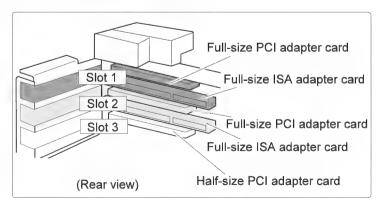
Full-size ISA adapter card (lower connector)

Slot 2: Full-size PCI adapter card (upper connecter)

or

Full-size ISA adapter card (lower connector)

Slot 3: Half-size PCI adapter card



Wake-on LAN (WOL) Support

The SelectaDock III system supports the following wake-on LAN cards.

Note: Only the ThinkPad 770 user can use the wake-on LAN function.

IBM Auto Wake Token Ring ISA Adapter (55H6760)

IBM 100/10 EtherJet PCI Adapter w/WOL (85H9921)

IBM PCI Wake On LAN Token Ring Adapter (86H1880)

PC Card Slots

Two PC card slots on the SelectaDock III system can accommodate either of the following PC Card combinations:

2 Type I or Type II Cards

1 Type III Card (lower slot only)

USB Ports

The universal serial bus (USB) function is not supported in the ThinkPad 760 and 765 computers. Only the ThinkPad 770 computer can use this function.

Installing a Device in the UltraBay II Tray

Before installing a device into the UltraBay II tray, make sure that:

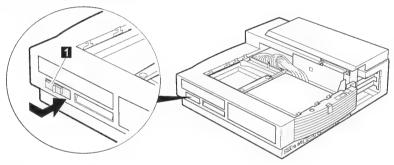
Power is turned off.

The computer is undocked.

The SelectaBase port replicator is detached.

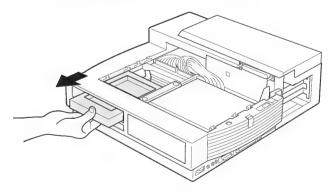
To install the device, do the following:

1 Slide and push the lever 1.



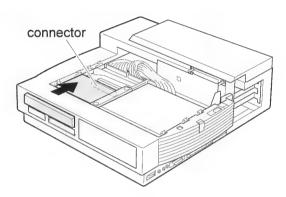
2 Remove the spacer if there is one.

Note: In the UltraBay II tray, a spacer is initially included when the SelectaDock III system is shipped.

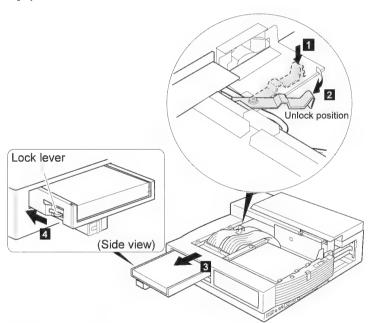


3 Install the UltraBay II device you are going to use.
Make sure that the device is fully engaged with the connector.

Note: If you install an HDD, install it into the attachment first; then install the HDD-attachment assembly into the UltraBay II tray.



- **4** If you want to secure the device in the UltraBay II tray, lock the eject button as follows:
 - a) Unlatch the UltraBay II tray with pushing the latch 1 and rotate it clockwise 2.
 - b) Pull the UltraBay II tray forward 3.
 - $\it c$) Slide the lock lever on the left side of the UltraBay II tray $_4$.



d) Reinstall the UltraBay II tray; then latch the bay.

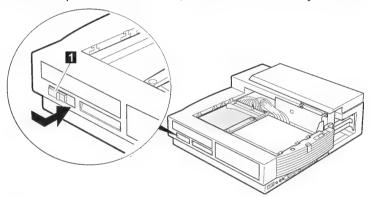
You have finished installing the device into the UltraBay II tray.

After installing the device, go to Chapter 3 to configure the system.

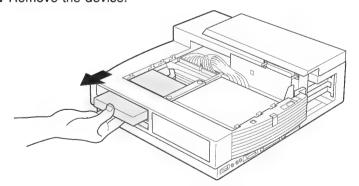
When removing

To remove the device from the UltraBay II tray:

- 1. Unlock the device eject lock if you secured the device in the tray.
- 2. Slide and push the lever 1; the device in the tray releases.



3. Remove the device.



Note: Do not remove the drive before shutdown the operating system. When you slide the lever 1 during the operating system is working, beep sounds.

Installing a Device in the Device Space

To install an IDE or a SCSI drive in the device space do the following:

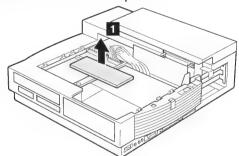
When installing an IDE device -

An IDE device has three modes: master, slave, and cable select. Select the cable select mode before installing the IDE device into the SelectaDock III system. See the instructions in the manual accompanying your IDE device. If you cannot select the cable select mode, do one of the following:

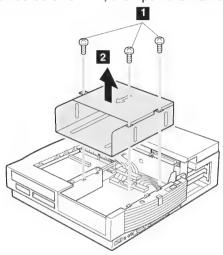
If no hard disk is installed in the UltraBay II tray, set the mode to master mode.

If a hard disk is installed in the UltraBay II tray, set the mode to slave mode.

1 Remove the front top cover 1.



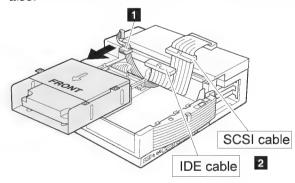
2 Remove the three screws 1; then pull the frame upward 2.



3 Screw the drive into the frame.

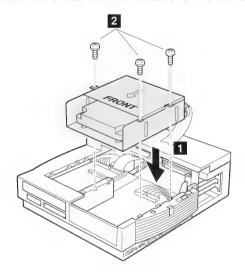
Note: Make sure the device is oriented properly.

4 Connect the power cable 1 and IDE cable or SCSI cable 2 to the drive in the frame. If necessary, connect the audio cable also.



5 Replace the frame into the device space 1; then drive in the screws 2.

Note: Make sure the cables are not above the device space.



6 Reinstall the front top cover.

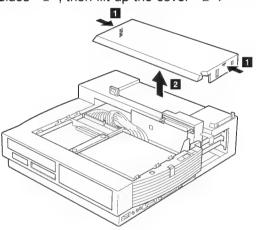
You have finished installing the drive into the device space.

After installing the device, go to Chapter 3 to configure the system.

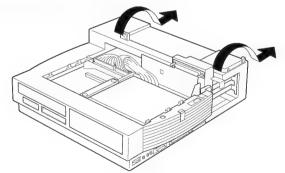
Installing a PCI or an ISA Adapter Card

To install an adapter card in the SelectaDock III system, do the following:

1 Remove the connector cover by pulling out the hooks on both sides 1; then lift up the cover 2.

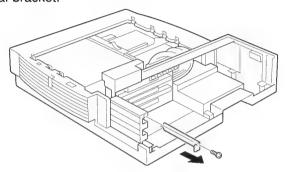


2 Open and remove the rear cover.

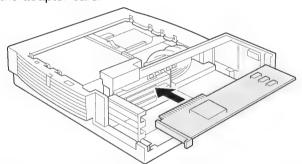


3 Set the adapter card switches or jumpers (if needed) using the instructions supplied with the adapter card. For future reference, record any switch or jumper information in this guide.

4 Remove the screws holding the metal bracket. Then remove the metal bracket.

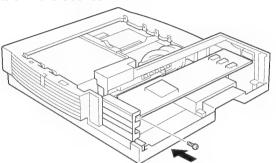


5 Install the adapter card.

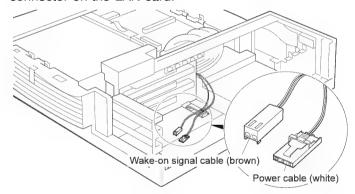


Note: In slots 1 and 2, the **upper** (smaller) connector is for a **PCI** adapter card. The **lower** (larger) connector is for an **ISA** adapter card. In slot 3, the connector is for a half-size **PCI** adapter card.

6 Drive in the screw that held the metal bracket to secure the adapter card in the socket.



If you are installing the wake-on LAN card, connect the wake-up signal cable (brown) and power cable (white) to each connector on the LAN card.



- **7** Attach and close the rear cover.
- 8 Reconnect the cables and power cord.
- 9 Attach the connector cover to the SelectaDock III system.

You have finished installing the adapter card.

After attaching the adapter card, go to Chapter 3 to configure the system.

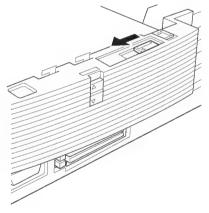
Installing a PC Card

To install a PC Card, do the following:

- 1 Slide the PC Card lock to the unlocked position.
- 2 Determine which slot to use. A Type III card must be inserted in the lower slot only.
- 3 Align the card in the slot, and insert until it is fully seated.

Note: Make sure the PC Card is fully installed into the slot. Loose installation will cause an error.

4 Slide the PC Card lock to the locked position for PC Card security.



You have finished installing a PC Card.

Plug & Play for PC Card -

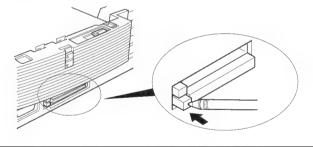
Once you installed the PC Card Director and the device driver for the PC Card, you can use the card as soon as you install it into the slot of the SelectaDock III system. This is called plug & play.

Refer to the user's guide of your computer for details.

When Removing

To remove the card, press the corresponding eject button.

Note: If you have difficulty pressing with your finger, use a pointed device as follows:



Using the MIDI/Joystick Port

The SelectaDock III system provides a MIDI/joystick port as a functional replacement for the same port on the computer. The MIDI signals through this port are sent directly the computer's MIDI port. Therefore, if your computer does not have a MIDI port, you cannot use the MIDI feature.

The SelectaDock III system has a game controller for the joystick. Even if your computer does not have a game controller, the controller in the SelectaDock system is available and takes control through the ThinkPad Configuration program. When you use a joystick connected to the SelectaDock system, you must enable the game feature with the ThinkPad Configuration program.

To use the MIDI/joystick port, do the following:

- 1 Turn off the computer, and remove the power cord from the SelectaDock system.
- 2 Connect a MIDI connector or a joystick cable to the port.



3 Connect the other end of the cable to a MIDI equipment connector or a joystick.

Note -

When you have a Sound Blaster-compatible ISA adapter card installed, do not use the MIDI/joystick port. Otherwise, the computer will have resource conflict problems.

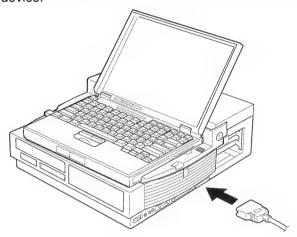
When you use such a card, disable the port feature with the ThinkPad Configuration program.

You have finished connecting the MIDI/joystick port.

Connecting External SCSI Devices

You can connect external SCSI devices to the SCSI connector. The SCSI controller in the SelectaDock system is compatible with the Fast SCSI (Ultra-SCSI) Adaptec AIC-7860 controller, and provides a 50-pin half-pitch SCSI connector.

To install the drives, follow the installation instructions that came with the SCSI device.



Notes :

External SCSI cables are supplied with the drive. As an alternative, you can purchase them at a computer store.

Turn on all external SCSI devices before you turn on the system.

See "Setting Up a SCSI Device" on page 3-6 for information on configuring the system.

Chapter 3. System Configuration

Highlight -

After installing any option devices, you need to configure your computer using ThinkPad Configuration program. This chapter explains how to configure your computer.

Note: When you configure your computer, undock it from the the SelectaDock system.

This chapter contains:

| Setting Up an IDE Device | 3-2 |
|---|-----|
| For DOS | 3-2 |
| For Windows 3.1, Windows NT, Windows 95, or OS/2 Warp | 3-3 |
| Setting Up a SCSI Device | 3-6 |
| For Windows 95 | 3-6 |
| Setting Up An Adapter Card | 3-8 |
| For DOS | 3-8 |
| For Windows 3.1, Windows NT, Windows 95, or OS/2 Warp | 3-8 |
| System Resources Assignment | 3-9 |
| | |

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Setting Up an IDE Device

If you installed an IDE device in the SelectaDock system, make sure that an IDE controller is enabled. This procedure depends on the operating system in your computer.

For DOS

For the ThinkPad 760 and 765 user, do as follows:

- 1 At the DOS command prompt, enter: PS2 ? IDE2 to show the status of the IDE adapter.
- **2** If it is disabled, enter: PS2 IDE2 Enable to enable it.
- 3 Reboot the computer to make the change effective. You have finished the setup.

For the ThinkPad 770 user, do as follows:

1 Select a PCI IRQ with the PS2 ? PCIIRQ command.

Note: Do not use IRQ 11 and IRQ 15. You have to disable a device or port to set an IRQ for the SelectaDock III system. When you select an IRQ, a hardware conflict message appears. Disable the device currently assigned to that IRQ.

- 2 Reboot the computer to make the change effective.
- **3** At the DOS command prompt, enter: PS2 ? IDE3 to show the status of the IDE adapter.
- 4 If it is disabled, enter: PS2 IDE3 Enable to enable it.

5 Reboot the computer to make the change effective. You have finished the setup.

For Windows 3.1, Windows NT, Windows 95, or OS/2 Warp

For the ThinkPad 760 and 765 user, do as follows:

- 1 Select the ThinkPad folder.
- 2 Select the ThinkPad Configuration icon.
- 3 Click on the Docking Station () button.
- 4 Select Enable IDE device.
- **5** Click on **OK**; then close the ThinkPad Configuration program.
- 6 Reboot the computer to make the change effective.

For the ThinkPad 770 with Windows 95 user, do as follows:

- 1 Click on Start, move the cursor over Program, and ThinkPad, and click on ThinkPad Configuration.
- 2 Click on the Docking Station () button.
- 3 Set only the 1st IRQ in the next window.

Note: Do not use IRQ 11 and IRQ 15. You have to disable a device or port to set an IRQ for the SelectaDock III system. When you select an IRQ, a hardware conflict message appears. Disable the device currently assigned to that IRQ.

- 4 Click on **OK**; then close the ThinkPad Configuration program.
- 5 Reboot the computer to make the change effective.
- 6 Select the ThinkPad folder.

- 7 Select the ThinkPad Configuration icon.
- 8 Click on the Docking Station () button.
- 9 Select Enable IDE device in the docking station.
- 10 Select 3rd IRQ.
- 11 Click on OK; then close the ThinkPad Configuration program.
- **12** Reboot the computer to make the change effective.

For the ThinkPad 770 with Windows NT and OS/2 Warp user, do as follows:

- 1 Select the ThinkPad folder.
- 2 Select the ThinkPad Configuration icon.
- 3 Click on the Docking Station () button.
- 4 Click on Advanced., button.
- 5 Click on PCI Device Setup button.
- 6 Set only the 1st IRQ in the next window.

Note: Do not use IRQ 11 and IRQ 15. You have to disable a device or port to set an IRQ for the SelectaDock III system. When you select an IRQ, a hardware conflict message appears. Disable the device currently assigned to that IRQ.

- **7** Click on **OK**; then close the ThinkPad Configuration program.
- 8 Reboot the computer to make the change effective.
- 9 Select the ThinkPad folder.
- 10 Select the ThinkPad Configuration icon.

- 11 Select the Docking Station () button.
- 12 Select Enable IDE device.
- 13 Select Third; then select one of the selections in the Third IDE device window.
- 14 Click on OK; then close the ThinkPad Configuration program.
- 15 Reboot the computer to make the change effective.

Setting Up a SCSI Device

After installing a SCSI device in the SelectaDock III system, configure your computer by referring to section or manual applicable for the operating system you use:

For DOS and Windows 3.1 Appendix A.

For other operating systems - The manual supplied with the operating system or SCSI device.

Note: For Windows NT user and use other drive than CD-ROM and hard disk drive that does not depend on the Adaptec SCSI hard disk peripheral, get the 2940 driver from the following Web. site:

http://www.adaptec.com/

For Windows 95

To update the SCSI controller, do as follows:

- 1 Double-click on My Computer, Control Panel, and System.
- 2 Click on the Device Manager tab.
- 3 Click on the + mark of the SCSI Controller selection. A submenu appears.
- 4 Select Adaptec AHA-294X/78XX PCI SCSI Controller by clicking on it; then click on the Properties button.
- 5 Click on the Driver tab.
- 6 Click on Update Driver.
- 7 Insert the option diskette in the diskette drive; then make sure that Yes (Recommended) is selected.
- 8 Click on Next.

- 9 Click on Finish.
- 10 Click on OK in the "Insert Disk" window. The Copying File.. window appears.
- 11 Change C:\WINDOWS\OPTIONS\CABS to A:\
- 12 Click on OK.

Follow the instructions on the windows.

SCSLID -

A SCSI ID must be assigned and a terminator must be installed at the end of the device daisy chain. Refer to the following sections when you set up the SCSI device.

Each device attached to a SCSI connector must have a different SCSI ID. 7 is the default ID for a SCSI device in the SelectaDock system, and 0-6 is the ID for external SCSI device.

See your SCSI device documentation for instructions on how to set the SCSI ID.

SCSI Termination -

Internal SCSI device termination:

The internal SCSI cable automatically terminates at its end. When installing a SCSI device in the SelectaDock system, disable or remove the terminations.

External SCSI device termination:

When connecting an external SCSI device, terminate the SCSI device at the end of the daisy chain. Make sure any other SCSI device is not terminated.

Setting Up An Adapter Card

Before you configure an adapter card with the ThinkPad Configuration program, read the following note:

Note:

Perform this step before docking your computer to the SelectaDock system for the first time.

If you have installed a non-plug & play (legacy ISA) adapter card, assign system resources to the adapter card you just installed by using the ThinkPad Configuration program on your computer. For more information, see page 3-15.

To configure your system, use the ThinkPad Configuration program. Do the following, depending on the operating system you are using:

For DOS

1 At the DOS command prompt, enter:

to determine which command you can use to assign system resources. See the online book of the computer for command details.

2 Assign the system resources.

To install the device driver for the operating system, continue the installation instructions described in the documentation shipped with the adapter card.

For Windows 3.1, Windows NT, Windows 95, or OS/2 Warp

- 1 Select the ThinkPad folder.
- 2 Select the ThinkPad Configuration icon.
- 3 Click on the Docking Station () button.
- 4 Fill in all the items for the system resource information. Click on the Help button if you need an explanation about an item.

System Resources Assignment

In most cases, your computer will automatically assign the system resources when you install a new device. For example, your computer will assign such resources as the *Interrupt Request* level (IRQ) and the *Input/Output* (I/O) ports when you install a PC Card modem. Other devices may need such system resources as *Direct Memory Access* (DMA) and *Memory*. Each system resource has a maximum value, for example the maximum value for IRQ on your computer is 16 (0–15).

For information about the system resources available on your computer, see online book or user's guide of your computer.

Sometimes Windows 95 does not allocate the resources correctly since the resource may already be allocated to another device. This is called a system resource *conflict* or *contention*. In this case, you must set the system resources manually by using either method:

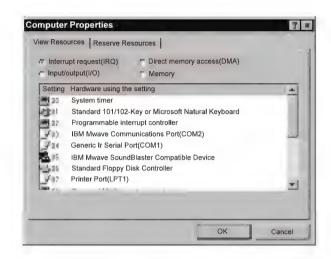
Device Manager of Windows 95

ThinkPad Configuration program of your ThinkPad computer.

Before you allocate the system resources manually, you must find out the currently available system resources by doing the following:

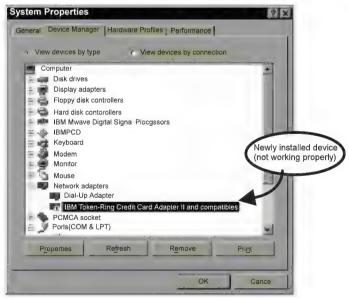
- 1 Double-click on My Computer, Control Panel, and System; then click on the Device Manager tab. The current devices are listed.
- **2** Click on the **Computer** icon at the top of the device list and click on **Properties**.

The **View Resources** window showing the resources (IRQ, I/O ports, DMA and memory) currently available appears:



3 Double-click on **My Computer**, **Control Panel**, and **System**; then click on the **Device Manager** tab. The Windows 95 Device Manager window appears.

The symbol "!" or "x" appears next to the device symbol which is causing the conflict.



4 Highlight the device, in this case the IBM Token-Ring Credit... device and click on Properties, the Resources tab, and then on Set Configuration Manually. The Conflicting device list box appears.



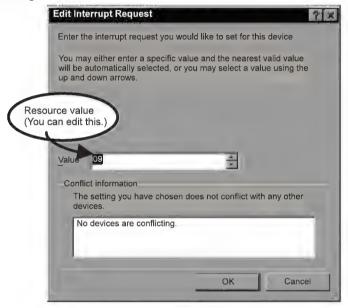
- 5 Remove the checkmark on Use automatic settings.
- 6 Click on the Basic configuration ... button on the right and select a different value.



If the messages in the Conflicting device list box disappear, click on OK and go on to step 8.

If the messages still remain, click on Change Setting and continue to the next step.

7 Change the conflicting values one by one by editing the following window:



8 When all conflicting values have been corrected, **No conflicts** is displayed in the **Conflicting device list** box.



9 Open the Device Manager again after you restart Windows 95 to make sure the new device is working properly.

If you still cannot start up the device:

Read the manual that came with the device since some devices work only within a fixed memory range, on a fixed I/O port, or at a fixed IRQ level. The manuals may describe these limitations.

Unregister the device from the Device Manager, and then reinstall it.

It may be that no more system resources are available—for example, all IRQ values have been used already or there is no vacant memory available.

Inquire with the manufacturer of the device.

Memo

The system resources you assign are:

IRQ (hardware interrupt request):

There are 16 IRQs in the system, but certain IRQs are reserved by the system. You can assign unused IRQs for the newly installed devices.

DMA (direct memory access channel):

There are 8 DMA channels: 0 through 7. Certain DMA channels are reserved by the system. This resource is typically used by such adapters as sound cards and SCSI adapters for transferring large blocks of data.

I/O address:

The input/output (I/O) address space extends from X'0000' to X'FFFF'. The I/O ports of the features and adapters are mapped here.

Memory address:

This area is for BIOS ROM or the memory-mapped I/O area of the adapters.

IRQs and memory addresses are typically the most likely sources of conflict. For instance, if an ISA adapter card (typically the Sound Blaster adapter) in your SelectaDock system is using DMA channel 1, it will conflict with the audio feature in the computer that uses DMA channels 0 and 1 when enabled.

Always try to select proper values to avoid resource conflict. Refer to "System Resources Assignment" on page 3-9 to resolving the resource conflict.

Chapter 4. Using the Security Features

Highlight -

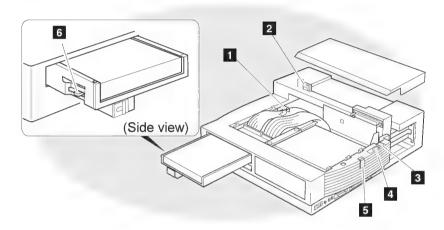
This chapter describes the security features of the SelectaDock system. The multiuser lock make it easy to manage security when a database on the SelectaDock system is shared by several users.

This chapter contains:

| SelectaDock III Security Features | 4-2 |
|--|-----|
| Security Function for Your SelectaDock system | 4-3 |
| PC Card Lock and Device Eject Lock | 4-3 |
| Security Key | 4-3 |
| Cable Lock | 4-3 |
| Multiuser Lock | 4-4 |
| Maintaining While Sharing the SelectaDock System | 4-5 |
| Each User managing the Password | 4-5 |
| Administrator Managing the Password | 4-6 |
| | |

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SelectaDock III Security Features



| Location | Secured Device | How to Use |
|---------------------------|-----------------------------------|---|
| 1 UltraBay II latch | Device in the UltraBay II tray | This latch prevent the UltraBay II tray from being opened. To release the tray, push this latch and rotate it clockwise. |
| 2 Mechanical lock hole | SelectaDock system | This is the hole for installing the cable lock (See "Cable Lock" on page 4-3 for more information.) |
| 3 Multiuser lock | SelectaDock system | use this lock with the cable lock to make sharing the SelectaDock system secure. |
| 4 PC Card lock | PC Card | Slide this button forward before docking the SelectaBase to make the PC Card eject button inaccessible. |
| 5 SelectaBase lock | SelectaBase | After docking the SelectaBase, slide this button upward to make the SelectaBase nondetachable. |
| 6 Device eject lock | Device in the UltraBay II tray | After installing the device in the UltraBay II tray, slide this button backward to prevent any device in the tray from being removed. |

Security Function for Your SelectaDock system

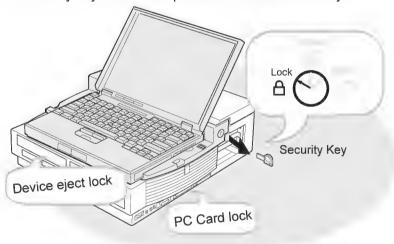
This section describes the security features of the entire SelectaDock system.

PC Card Lock and Device Eject Lock

To secure PC Cards and any device in the UltraBay II tray, lock the PC Card lock and the device eject lock before attaching the SelectaBase to the SelectaDock III system.

Security Key

To secure the ThinkPad computer in the SelectaDock system, set the security key to the Lock position and remove the key.

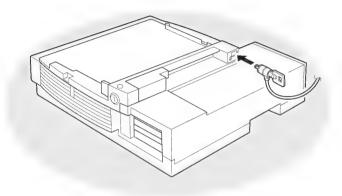


Cable Lock

Attach the cable lock key and set it the Lock position; then remove it. The SelectaDock system is secured.

Note: You can purchase the cable lock from a computer store.

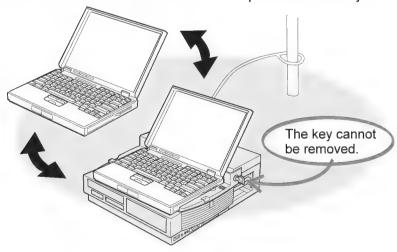
Install the cable lock as shown. Refer to the instructions that came with the lock for more information.



Multiuser Lock

If several users will be sharing the SelectaDock system, use the multiuser lock. When you use the feature, you also need to install the cable lock to secure the SelectaDock system itself.

When the multiuser lock is set, the security key is fixed in the Unlock position and cannot be removed. Thus, the each user who shares the SelectaDock system does not need his or her own security key. Each user can dock or undock their computer without a key.



Maintaining While Sharing the SelectaDock System

If the Multiuser lock is enabled, authorized people can access the data on the hard disk drive in the SelectaDock III system and an authorized ThinkPad computer can be attached to the SelectaDock III system.

If each user manages the password:

All authorized users know the password (HDP) of the SelectaDock system and each his or her own password (HDP or PAP) for the ThinkPad.

"Each User managing the Password"

If the system administrator manages the password:

The system administrator sets the password to the SelectaDock system (HDP) and all authorized ThinkPads (PAP), and does not inform the users of the password. Each authorized user can use the SelectaDock system without knowing the password.

*Administrator Managing the Password" on page 4-6

Note:

HDP: Hard disk password PAP: Supervisor password

Each User managing the Password

To set the password to the common hard disk in the SelectaDock system, do as follows:

- **1** The administrator sets the HDP for the drive to be shared as follows:
 - a) Remove the common hard disk from the SelectaDock system; then install it into the one of the ThinkPad computers.
 - b) Set the hard disk password to the common hard disk.

Note: See the user's guide of the computer for how to set the password.

- c) Replace the common hard disk drive in the SelectaDock III system.
- d) Inform all authorized users of the password.
- **2** When a user turns on a computer docked with the shared SelectaDock system, the computer prompts for the HDP. The user must enter the correct password.
- **3** Users can set their own HDP for any other hard disk drive installed in their own ThinkPad or they can set their own PAP.

Administrator Managing the Password

To set up the password for the authorized users, do as follows.

Note -

This procedure is for the system administrator. He or she sets the HDP to the common hard disk, and the PAP to each authorized ThinkPad computer.

The system administrator should not let the users know the supervisor password or the hard disk password.

- **1** Remove the common hard disk from the SelectaDock system; then install it into the one of the ThinkPad computers.
- $oldsymbol{2}$ Set the HDP to the common hard disk.

Note: See the user's guide of the computer for how to set the password.

- **3** Remove the common hard disk from the computer and reinstall it in the SelectaDock system.
- 4 Set a supervisor password for each authorized ThinkPad.

Note: This PAP must be the same as the HDP for the SelectaDock system.

Now the SelectaDock system is ready to be used by authorized users. The users dock their computers in the SelectaDock system

using cold docking. As long as the ThinkPad computer has a PAP that is same as the HDP of the SelectaDock system, the users can access the common hard disk without entering and knowing the password. If someone attempts to dock a ThinkPad computer that does not have the same PAP as the HDP of the SelectaDock system, the system prompts for the password. Since only the system administrator knows this password, an unauthorized user can never access the data of the SelectaDock system.

Chapter 5. Hints, Tips, and Limitations

Highlight -

When a computer is docked to or undocked from the SelectaDock system, the computer environment or configuration changes. To use the computer effectively and ensure the safety of your data, you need to pay attention to several points raised in this chapter.

| This chapter conta |
|--------------------|
|--------------------|

| Hints and Tips | | | | | | | | | | | | | | | | | | 5-2 |
|----------------|--|---|---|---|--|---|---|--|--|---|--|---|---|--|---|--|---|-----|
| Limitations | | _ | _ | _ | | _ | _ | | | _ | | _ | _ | | _ | | _ | 5-5 |

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Hints and Tips

| Item | Hints and Tips |
|--|---|
| Drive letter | After you dock the computer to and undock it from the SelectaDock system, the drive letters assigned to the drives in the computer and in the docking system might change. This might cause some problems; for example, a program running normally in the undocked state might not work after docking. |
| | To avoid problems caused by a change of the drive letter: |
| | Check the new drive letters after docking. Do not make a primary partition on the hard disk drive in the SelectaDock system. Check the source drive and the target drive when you make a file copy or file move operation. Check the drive of the file to be erased. Check the drive you will format. Do not register programs on the desktop of your operating system when the drive letter of the program changes from the docked to the undocked state. |
| When multiple configurations are not supported (depending on the operating system) | If the operating system does not support the selection of device drivers with a multiple configuration, you need to configure all the necessary device drivers for the docked configuration. Then when you boot the operating system after undocking the computer error messages appear indicating that devices are not available. |

| Item | Hints and Tips |
|--|--|
| Installing OS/2 Warp | To install OS/2 Warp from a SCSI CD-ROM drive that is connected to the SelectaDock SCSI connector, do as follows: |
| | 1 Make a copy of Diskette 1 of the operating system: |
| | a) Insert Diskette 1 and a blank diskette in drives A and B. |
| | b) Type the following command at the command prompt screen: |
| | diskcopy a: b: |
| | c) Press Enter. |
| | 2 Copy AlC7870.ADD from the SelectaDock Option Diskette to the root directory of the copied Diskette 1. The root directory is the first directory on the diskette. AlC7870.ADD overwrites any existing versions of the device drivers included on the copied Diskette 1. |
| | 3 Start installation by inserting the Installation Diskette into drive A and restarting the system. When prompted to insert Diskette 1, insert the copy that you created. |
| | 4 Follow the instructions in the <i>OS/2 Warp User's Guide</i> to complete the installation of OS/2 Warp. |
| Installing Windows NT | To install the Windows NT, see the relevant ThinkPad online book. |
| Using the SCSI device driver bundled with Windows 95 | The SCSI device driver bundled with Windows 95 does not support the suspend and resume function. When you use such SCSI devices, you must disable suspend and hibernation as follows: |
| | 1 Open the ThinkPad Configuration folder, and click on the |
| | Docking Station (🚅) button. |
| | 2 Deselect Suspend/hibernate while docked if it has been selected. |
| | 3 Click on OK to close the ThinkPad Configuration program. |

| Item | Hints and Tips |
|---|--|
| Parameter for the socket service | When using a "Point Enabler" supplied with a PC Card in the PC Card slot of the SelectaDock system, use IG1=Y rather than IG0=Y as the socket service parameter. |
| I/O address for the game port | The I/O address for the game port is assigned to address X '0201'. This address cannot be changed. |
| Using an ethernet adapter card If you are installing one of the | You must obtain one of the following adapter connectors: P/N 329517, manufactured by AMP P/N UG-306/U, manufactured by HIROSE |
| following Ethernet option adapter cards in the docking station and connect cables in a daisy chain (serial connection): | Attach the adapter connector to the adapter card connector. Then you can attach the T-shape Ethernet cable to the adapter connector. |
| 3Com EtherLink III SMC EtherCard Elite Ultra LAN Adapter Novell NE2000plus ISA Ethernet Adapter | |
| Power Supply of the ThinkPad and SelectaDock system | When you dock the computer to the SelectaDock system, connect the ac power cord to the SelectaDock system. You cannot use a docked computer powered only with the battery pack. |
| | Note: The SelectaDock system does not have any power switch. The computer power is controlled by the computer's power switch even if it is docked in the SelectaDock system. |
| Charging the battery pack | When a computer is docked in the SelectaDock system, and the power is not turned on, the battery pack is charged. When computer power is turned on, charging occurs only if power consumption by the computer is low, depending on the power management of the computer. |

Limitations

| Item | Limitation |
|--------------------------------|--|
| Using a diskette drive | Even though the SelectaDock III system can support either external or internal diskette drives, you can use only one at a time. Attention If you connect two diskette drives and attempt to use both of them, data on both of diskettes will be lost. |
| Using ISA or PCI adapter cards | Consider card compatibility when you purchase an ISA or a PCI adapter card. |
| | The SelectaDock III system does not support the REFRESH signal for an ISA bus when the computer is attached. Therefore the following ISA adapter cards are not supported: |
| | IBM-Multi Port Card (part number 00F5529) IBM-Multi Port 2 Card (part number 33F8791) DRAM memory cards ISA cards that use the REFRESH signal to detect whether the bus is working ISA cards that use the REFRESH signal as a clock counter |
| Suspend and resume functions | The suspend and resume function are not supported when you dock the ThinkPad 760 or 765 in the SelectaDock system. If you are using DOS or Windows 3.1, the suspend and resume functions are not supported if an ASPI8IBM.SYS (SCSI) driver is loaded. If you are using Windows 95, the suspend and resume functions are not supported when an AIC-7860 (SCSI) driver is loaded by Windows 95 and if it is enabled by the device manager (when the checkbox is selected). The suspend and resume functions are not supported if an adapter card or PC Card is installed in a card slot. |

| Item | Limitation |
|--------------------------|--|
| Allocating I/O resources | When the I/O resources X'330' to X'333' are allocated to an adapter card installed in the SelectaDock system with the ThinkPad 760EL and 765L docked, you must disable the ESS function (audio) by using the ThinkPad Configuration program. |

Chapter 6. Troubleshooting

Troubleshooting procedures

Troubleshoot the system with the following procedures:

- 1. Determine the meaning of the Attention indicator behavior.
- 2. Isolate the problem unit.
- 3. Recover the system by using the troubleshooting guide.
- 4. Run the test, if you need to.
- 5. Request service.

| This chapter contains: Attention Indicator |
|---|
| |
| 9 |
| Checking the ThinkPad Computer 6-7 |
| Checking the ThinkPad and SelectaBase Combination 6-8 |
| Checking the SelectaDock III system 6-8 |
| Troubleshooting Guide 6-10 |
| Visible Problems 6-11 |
| Setup Problems 6-13 |
| Startup Problems 6-14 |
| PC Card Problems 6-14 |
| UltraBay II Device Problems 6-15 |
| Device Space Problems 6-16 |
| SCSI Device Problems 6-17 |
| Audio Problems 6-18 |
| Sound Blaster Problems 6-18 |
| MIDI/Joystick (Game) Port Problems 6-18 |
| Adapter Problems |
| USB Port Problems |
| |
| |
| |
| Resource Conflict Problems |
| Running Tests |
| Internal Drive Test 6-22 |
| SCSI Subsystem Test 6-23 |
| If the Test Detects No Error 6-23 |
| Requesting Service |

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Important

This chapter is to be used for the problems caused by the SelectaDock system only. For problems caused by products other than the SelectaDock system, use the documentation for that product.

The tests in this chapter are designed to test **IBM products only**. Other products may cause misleading error information or incorrect computer responses. Refer to the instructions supplied with those products for testing information.

You should analyze all problems not caused by the SelectaDock system by using the documentation provided with the product. This book covers problems unique to the SelectaDock system—in other words, problems that occur only when the SelectaDock system is used.

If you have done all the actions recommended in this guide and the problem is still not fixed, have the SelectaDock III system serviced.

Attention Indicator

The SelectaDock system uses a combination of the Attention indicator and beeps to let you know when the docking or undocking operation you are attempting is not acceptable.

The Attention indicator also lights when an unacceptable drive is installed in the UltraBay II.

The following table shows what action should be taken when the Attention indicator is lit or blinking:

| Symptom | Cause | What to Do |
|--|--|--|
| The system beeps and the Attention indicator stays on. | An unsupported device is attached to the UltraBay II connector, or a computer without a PCI bus is being docked. Three or more IDE drives are installed in the SelectaDock system. An external ac/dc adapter is connected to the SelectaBase port replicator or ThinkPad computer. | Verify that the device in the UltraBay II is installed correctly or designed for the bay, or undock the computer. ISA bus computers are not supported. Remove the extra IDE drive or drives from the SelectaDock system. Only two IDE drives are accepted a time. Undock the computer and remove the external ac/dc adapter cable from the SelectaBase. |

| Symptom | Cause | What to Do |
|---|---|--|
| The system beeps and the Attention indicator blinks. | 1. An eject attempt was made (the security key was turned to the Eject position) while the computer was using the SelectaDock system. (This is only for DOS or Windows 3.1 users with the beep turned on.) 2. An attempt was made to eject the device in the UltraBay II while the computer was in operation or suspend mode. | Close any application programs, such as a program on a hard disk drive installed in the SelectaDock system, and then try to eject again. Return the eject lever of the UltraBay II tray to the Lock position. |
| The system beeps twice and the Attention indicator blinks once. | The hot or warm undocking has been successful and the computer is ready to be ejected. | Eject the computer from the SelectaDock system. |

Because physical characteristics of the connectors for an ISA-bus-architecture computer are the same as those for a PCI-bus-architecture computer, it is possible to dock an incompatible computer. To protect the computer and the SelectaDock system from this improper operation, the SelectaDock system warns you with the Attention indicator and beeps. The table summarizes the reactions of the SelectaDock system when an ISA bus computer is docked.

| Computer Status (ISA Bus) | What Happens | What You Must Do |
|---------------------------------|--|---|
| Turned on and running | The computer is turned off immediately. | |
| In standby | The Attention indicator lights to indicate that an incorrect computer has been docked. | Undock the computer. |
| Suspended | , , , , , , , , , , , , , , , , , , , | After undocking, the Attention indicator turns off. |
| Hibernated | The Attention indicator lights to notify that an | |
| Turned off | incorrect computer has been docked. | |

Isolating a Problem Unit

To simplify the problems, isolate which of the following units causes the problem:

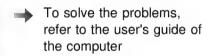
The ThinkPad computer

The combination of the computer and the SelectaBase port replicator

The SelectaDock system

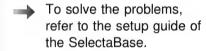
Use the following steps to determine what is causing your problem:

1 Check the ThinkPad computer. ("Checking the ThinkPad Computer" on page 6-7)



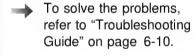
-

2 Check the ThinkPad and SelectaBase. ("Checking the ThinkPad and SelectaBase Combination" on page 6-8)



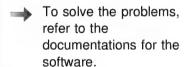


3 Check the SelectaDock III. ("Checking the SelectaDock III system" on page 6-8)





4 Check the software you used.



If the problem source is obvious, such as broken hardware, go directly to "Troubleshooting Guide" on page 6-10 for further instructions.

Note: Make a note of all error messages, and be prepared to give them to the service representative if you need to call for service.

Checking the ThinkPad Computer



Check whether the computer runs correctly. Try the same job that failed on your computer alone after undocking it from the SelectaDock system.

Note: If you can't do the same job on your computer only, go to "Test the ThinkPad Computer."

- 1 Turn off the computer; then undock it.
- **2** Attach all necessary external devices directly to the computer.
- 3 Run the same jobs with just the computer.

Did the same problem remain?

Yes The problem is possibly caused by the following:

The computer

The peripherals

Cables that connects the computer and the peripherals

Setup, operation, or software

Refer to the user's guide of your computer to further analyze the problem.

The problem occurs only when the computer is docked. No Go to step "Checking the ThinkPad and SelectaBase Combination" on page 6-8.

Test the ThinkPad Computer

If you can't do the same job on just your computer, run the system diagnostic program.

Did any error return?

Yes The problem is possibly caused by your computer. Refer to the user's guide of your computer.

No The problem occurs only when the computer is docked. Go to the next section.

Checking the ThinkPad and SelectaBase Combination



Check whether the computer runs correctly when docked to the SelectaBase. Do the same job on your computer after docking to it to the SelectaBase

If you cannot run the same job that created your problem, go to the next section.

- **1** Dock your computer to the SelectaBase and reconnect all external devices to the SelectaBase.
- 2 Run the same jobs.

Did the same problem remain?

Yes The SelectaBase is causing the problem. Refer to the SelectaBase setup guide to resolve the problem.

No Go to the next section.

Checking the SelectaDock III system



You are here because your problems occur only when you use the computer docked to the SelectaDock system.

1 Dock your SelectaBase and the computer to the SelectaDock III. Then connect the ac power cord to the SelectaDock III, but do not turn the power on yet.

Did the docked indicator on the SelectaDock III panel turn on?

Yes The SelectaDock III detected that your computer is docked. Go to the next step.

No Your computer is not docked correctly. Go to "Setup Problems" on page 6-13, and take the corrective actions provided.

2 Turn on the external devices, and then the computer.

Note: This sequence is important because the computer checks during its power-on self-test that the devices are powered on and ready.

Did the Attention indicator on the SelectaDock III panel turn on or blink?

Yes An incorrect docking status has been detected. Go to "Setup Problems" on page 6-13, and take the actions provided.

No Go to the next question.

Did the Power-On indicator on the SelectaDock system panel turn on?

Yes Go to the next question.

No Go to "Setup Problems" on page 6-13, and take the actions provided.

Did the boot operation finished as expected?

Yes Go to "Troubleshooting Guide" on page 6-10.

No Go to "Startup Problems" on page 6-14, and take the actions provided.

Troubleshooting Guide

Find your problem symptom and go to the page indicated.

| Troubleshooting Chart | Page |
|--|------|
| Visible problems | 6-11 |
| Setup problems | 6-13 |
| Startup problems | 6-14 |
| PC Card problems | 6-14 |
| UltraBay II device problems | 6-15 |
| Drive space problems | 6-16 |
| SCSI drive problems | 6-17 |
| Audio problems | 6-18 |
| Sound Blaster problems | 6-18 |
| MIDI/joystick (game) port problems | 6-18 |
| Adapter problems | 6-19 |
| USB port problems | 6-19 |
| Wake-up on LAN problems | 6-20 |
| Intermittent problems | 6-20 |
| Resource conflict problems | 6-21 |
| Other problems | 6-22 |
| Note: Run diagnostic tests on all the devices installed or attached to the SelectaDock system. | |

Visible Problems

| Problem | Action |
|---|--|
| Hardware, such as the cover, is broken. | When hardware is broken, have the SelectaDock system serviced. See the warranty statement on page C-2 for any service charge that may be incurred if the problem was caused by improper use. |
| You cannot undock the computer. | Turn off the computer; then undock it from the SelectaDock system. When no electricity is applied to the SelectaDock system, undocking can be done mechanically. If removal is very difficult, have the SelectaDock system serviced. |
| The Attention indicator is lit or blinking. | The system uses security features to detect an inappropriate docking or undocking operation to prevent further problems. |
| | Verify that the computer to be docked is a supported model. The computer must use PCI architecture. If you are not sure about the architecture of the computer, see its user's guide. The following ThinkPad models are supported: 760E, 760ED, 760EL, 760ELD, 760XD, and 760XL 765D and 765L 770 If this indicator comes on when you turn the security key to the Eject position, check if the computer is performing some tasks that would be abnormally terminated if the computer was undocked. If this indicator comes on when you install a drive in the UltraBay II, verify that the drive is supported by the SelectaDock system. Verify that no more than two IDE devices are installed. Verify that no ac/dc cable is connected to the SelectaBase port replicator. |
| The security lock key is missing, or you need extra keys. | the SelectaBase setup guide for ordering instructions. |
| Your computer does not suspend or resume while docked. | Check if any adapter card is inserted in a card slot. Suspend and resume functions are not supported under this condition. |

| Problem | Action |
|---|--|
| After updating the ThinkPad Configuration program and PC Card Director, an error message window, such as Battchk, appears when you reboot the system. | Did you install the Battery Check Utility? If not, install the program (refer to Program Installation Guide). |

Setup Problems

| Problem | Action |
|---|---|
| The Docked indicator does not come on. | Verify that: |
| | The power cord is correctly plugged into a working electrical outlet and into the SelectaDock system. |
| | 2. The computer is correctly docked. Retry the docking operation. |
| | Note: Turn off the computer when you dock it to the SelectaDock system |
| The Power-On indicator | Verify that: |
| does not come on. | The Docked indicator is on. If not, do the actions listed for the "Docked indicator does not come on." **The Docked indicator is on. If not, do the actions listed for the indicator is on. If not, do the actions listed for the indicator is on. **The Docked indicator is on. If not, do the actions listed for the indicator is on. If not, do the actions listed for the indicator is on. If not, do the actions listed for the indicator is on. **The Docked indicator is on. If not, do the actions listed for the indicator is on. If not, do the actions listed for the indicator is on. **The Docked indicator does not come on." **The Docked indicator does not come on **The Docked indicator does |
| | The Attention indicator is not on. If it is lit or blinking, do the actions listed in "Visible Problems" on page 6-11. |
| | 3. The computer power switch is operating correctly. |
| | 4. The electrical current does not exceed the maximum limit. |
| The Attention indicator is lit or blinking. | "Visible Problems" on page 6-11. |
| Other indicators malfunction. | If the other indicators do not turn on or off correctly, have the SelectaDock system serviced. |
| You cannot undock the computer. | "Visible Problems" on page 6-11. |

Startup Problems

| Problem | Action |
|---|---|
| The operating system startup fails when docked. | Verify that: 1. The device for the boot operation is turned on and ready. Turn on the device power before the computer power when the drive |
| | has an independent power source. 2. The drive letters used for the boot operation are correct. The drive letters might have changed automatically when docked. |
| | The drive operates correctly when running device diagnostics. "Running Tests" on page 6-22 for details. |
| | The computer resource assignments do not conflict when the computer is docked. |
| | "Resource Conflict Problems" on page 6-21 if you suspect a resource conflict. |

PC Card Problems

| Problem | Action |
|---------------------------|---|
| An installed PC Card does | Verify that: |
| not work. | The PC Card is correctly installed. |
| | "Installing a PC Card" on page 2-16. |
| | The PC Card can be used without problems when installed directly in your computer. If not, pursue the problem using the troubleshooting guide in the computer's user's guide first. |
| | The PC card is correctly set up, including computer resource assignments and device driver installation. |
| | Run the diagnostic test for the PCMCIA slot. Running Tests" on page 6-22. |

UltraBay II Device Problems

| Problem | Action |
|--|--|
| The CD-ROM drive, DVD drive, or diskette drive in the UltraBay II does not work. | Verify that: |
| | The drive is engaged firmly to the UltraBay II connector. Remove and reinstall the drive. |
| | "Installing a Device in the UltraBay II Tray" on page 2-6 |
| | The drive works correctly if installed in the computer's UltraBay II. |
| | The drive works correctly when the drive test is run. → "Running Tests" on page 6-22. |
| | Correct setup (including resource assignment and device driver installation) was done when you installed the device. |
| | No more than two IDE devices are installed, including a device in the device space. |
| The hard disk drive in the | Verify that: |
| UltraBay II does not work. | The drive is connected firmly in the UltraBay II connector. Remove and reinstall the drive. |
| | "Installing a Device in the UltraBay II Tray" on page 2-6 |
| | 2. The drive works correctly if installed in the computer's UltraBay II. |
| | 3. The drive works correctly when running drive tests. |
| | *Running Tests" on page 6-22. |
| | The hard disk password is correctly set. User's guide of your computer for instructions to set the password. |

Device Space Problems

| Problem | Action |
|---|--|
| The IDE device in the device space does not work. | Verify that: |
| | The device is engaged firmly to the device space connector. Remove and reinstall the device. |
| | Correct setup (including resource assignment and device driver installation) was done when you installed the device. |
| | No more than two IDE devices are installed including the devices on the UltraBay II tray. |
| | 4. IDE 2 is enabled. |
| | 5. The mode selection has been set correctly. |
| The SCSI drive in the | Verify that: |
| device space does not work. | The device is engaged firmly to the device space connector. Remove and reinstall the device. |
| | Correct setup (including resource assignment and device driver installation) was done when you installed the device. |
| | 3. The terminator is disabled. |
| | Run the test 🍑 "SCSI Subsystem Test" on page 6-23 . |

SCSI Device Problems

| Problem | Action |
|---|--|
| The SCSI drives do not work. | Check these things first if an error message indicates that the software programs cannot find a SCSI drive (for example, a CD-ROM drive or hard disk drive) connected to the SCSI bus: |
| | 1. Be sure your computer is docked. |
| | Be sure that termination is correctly set for all devices on the SCSI bus as described. |
| | 3. Be sure the cables connecting the external and internal SCSI drives and the host adapter are attached securely. Also be sure the pin-1 orientation is correct for internal cables. If all connections are secure and if you have ruled out other possible problems, try replacing the cable. |
| | Be sure CD-ROM drives and other SCSI drives are attached to a power source and are turned on. |
| | Verify that: |
| | If all of the SCSI drives do not work: a) For external SCSI drives, check that the SCSI terminator is installed correctly at the last device. |
| | b) Ensure that the SCSI drive driver is installed correctly. "Installing the EZ-SCSI" on page A-2 |
| | c) Run the test "SCSI Subsystem Test" on page 6-23. d) If you have a known-good drive, attach only it to the SCSI connector, and then run the test to verify. If the drive runs without errors, the SCSI controller in the SelectaDock system is working correctly. Suspect one of the drives. 2. If the only one drive in a daisy chain does not work: |
| | a) Run the drive test to verify the drive operation. Follow the messages from the test. |
| | b) Ensure that the SCSI settings are correct. "Installing the EZ-SCSI" on page A-2 |
| The system does not boot from the SCSI drive. | Boot operation from a SCSI drive is not supported. |

Audio Problems

| Problem | Action |
|--------------------------------|--|
| Audio equipment does not work. | Verify that: |
| | The audio equipment works when connected directly to the computer. |
| | The audio equipment is designed to be supported by this product. Appendix B, "Specifications" on page B-1 |
| | When only the audio from the CD-ROM installed in the SelectaDock system does not work, have the SelectaDock III system serviced. |
| 4 | Run the test "Internal Drive Test" on page 6-22. |

Sound Blaster Problems

| Problem | Action |
|---|--|
| The Sound Blaster or compatible adapter card does not work. | Verify that: 1. The MIDI/joystick port was disabled by the ThinkPad Configuration program. |
| | The game port of your computer has also been disabled. User's guide of your computer. |

MIDI/Joystick (Game) Port Problems

| Problem | Action |
|------------------------------|---|
| The game port does not work. | Verify that: |
| | The game port switch is set to Enable through the ThinkPad Configuration program. "Using the MIDI/Joystick Port" on page 2-18 for details. |
| | The computer supports the MIDI port, if the problem occurs only when in MIDI operation. |

Adapter Problems

| Problem | Action |
|----------------------|--|
| The adapter does not | Verify that: |
| work. | The adapter is designed for the SelectaDock system adapter slot. |
| | You followed all the installation instructions described in "Installing a PCI or an ISA Adapter Card" on page 2-13. |
| | The system resources are assigned correctly by its utility program, if the adapter card is a non-PnP ISA adapter bus type. |
| | The driver disk is up to date. Contact the driver manufacturer. The accompanying disk may support only older desktop computers. |
| | See the adapter documentation that came with the option to diagnose problems. |

USB Port Problems

| Problem | Action |
|---------------------------------------|--|
| A connected USB device does not work. | Verify that: |
| | The USB device is connected correctly. |
| | The USB device correctly installed in the computer. If not, see the troubleshooting section of the ThinkPad user's guide first. |
| | The USB device is set up correctly, including the computer resource assignment and device driver installation. |
| | Open the System Properties window to see the resource conflict. |
| | Note: To open this window, double-click on My Computer, Control Panel, and System; then click on the Device Manager tab. |
| | Run the diagnostic test for USB port. |
| | "Internal Drive Test" on page 6-22 |

Wake-up on LAN problems

| Problem | Action |
|---|---|
| The system does not wake on when using Wake-on LAN adapter installed even when Wake-on Packed provided. | Verify that: |
| | The type of computer is correct. Only a ThinkPad 770 computer supports this feature. |
| | The LAN adapter card in the slot of the SelectaDock system supports the Wake-up LAN feature. |
| | 3. The LAN cable is connected to the LAN adapter. |
| | Both the power code and the Wake-up signal code is connected to the LAN adapter used for the Wake-up operation. |
| | 5. AC power is supplied to the computer when it is powered off. |
| | To operate the Wake-up feature, ac power must be supplied to the computer when it is turned off. |
| | 6. The Wake-up feature is enabled. |

Intermittent Problems

| Problem | Action |
|---------------------------------|--|
| An intermittent problem occurs. | The problem can be difficult to analyze because it occurs just once in a while. If your SelectaDock system has such a problem, verify that: |
| | The computer is firmly attached to the SelectaDock system. |
| | All cables and power cords are securely connected to the SelectaDock system and to the attached options. |
| | 3. The SCSI drive is correctly terminated. |
| | If these items are correct and the problem still occurs, write down what the problem is and what the system was doing when the problem occurred. Then contact your place of purchase or service representative for help. |

Resource Conflict Problems

| Problem | Action |
|--|---|
| You suspect that the computer resources assigned for the configured devices have conflicts when you docked the computer. Or you have identified a resource conflict—that is, two or more features or adapters are using the same IRQ, DMA, I/O address, or memory address. | Try to change one of the settings (if possible) for the conflicting adapters, PC Cards, or ThinkPad features, so that the conflict is resolved. |
| | Determine if you can change the settings for the newly installed adapters first, so that the existing configuration is not disturbed. Try changing the settings for the ThinkPad features and the existing adapters or cards or both only if the new adapters or cards are not configurable. (If you change the settings for the previously working hardware configuration, you might have to modify the setup of the corresponding software drivers accordingly.) See the associated software documentation for details. |
| | If you cannot get a conflict-free combination, try to disable one or more of the ThinkPad devices to eliminate the conflict. |
| | For example, to use the Sound Blaster adapter, you will need to disable the audio device in the computer to free the DMA channel 1. |
| | You may have to modify the choices for more than two adapters or ThinkPad devices or both to get a conflict-free combination. |

Note: If your problem does not appear to be caused by a resource conflict, the suggested actions are in the following order:

- 1. Check the *user's guide* for the device's installation instructions.
- 2. Check the adapter manual for software driver installation instructions.
- 3. Make sure that the adapters, connectors, and cables are firmly installed and connected.
- 4. Contact your point of purchase.
- 5. If the adapter is not manufactured by IBM, call the adapter manufacturer.
- 6. Call the IBM Help Center.

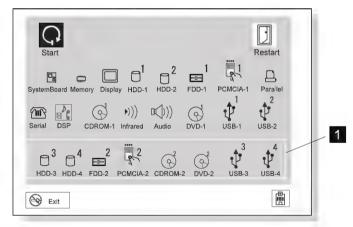
Running Tests

The diagnostic test program for internal devices is provided in the Easy-Setup program contained in your computer.

Internal Drive Test

The Easy-Setup test program on the computer is used to test the device in the SelectaDock system. This section explains how to select the devices in the SelectaDock system. If you need instructions to invoke the test, or interpret the test results, see the user's guide for your computer.

The following figure shows an example of the test devices selection menu. Devices in the SelectaDock system closed by a rectangular box $\,^1$.



The testable devices in the SelectaDock system are:

Hard disk drive in the UltraBay or the UltraBay II Diskette drive in the UltraBay or the UltraBay II PCMCIA slots CD-ROM drive in the UltraBay or the UltraBay II DVD in the UltraBay II

USB port

If an error is detected, an error code is displayed near the device icon on the screen. You can find the error description of the error codes in the user's guide for your computer. To isolate the error to the drive itself or the SelectaDock system. remove and reinstall the drive directly in the computer, and run the same test on the drive. If the error recurs, the drive has an error and needs to be serviced. If the error does not recur, the SelectaDock system has an error. In this case, have the SelectaDock system serviced.

SCSI Subsystem Test

The SelectaDock Docking System Options Diskette helps you troubleshoot expansion unit, SCSI adapter, and SCSI device problems through a series of menus.

To verify that these devices work correctly, run the diagnostics after you have finished installing SCSI drives to the SelectaDock system. Do the following:

- 1. Turn off the computer, the SelectaDock system, and external SCSI drives.
- 2. Insert the Option Diskette into drive A.
- 3. Turn on all attached external SCSI drives, the computer, and the SelectaDock system. The logo screen appears. After a few seconds the main menu appears.
- Select Test SCSI Subsystem.
- 5. Follow the instructions on the panel.

If the Test Detects No Error

If the tests detected no error, your system might have problems that cannot be detected by the diagnostic tests. This usually means the hardware components, including your computer, the SelectaBase, the SelectaDock system, and the devices attached to the SelectaDock III system are not causing the problem. The problem source might be software errors, setup errors, configuration problems, unsupported usage, data media, or intermittent hardware failures.

If you cannot resolve your system problem, have your SelectaDock system serviced.

Requesting Service

| | Important |
|-----|---|
| | Then you request repair service, be sure to send your computer and the SelectaDock system with the security key, if necessary. |
| Not | e: Even during the warranty period, you might be responsible for repair costs if the product was damaged due to misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by you. |
| | obtain warranty service for the SelectaDock system, call the IBM p Center. See the statement of limited warranty on page C-2. |
| | ore requesting service, make sure the problem source is the ectaDock system. See "Isolating a Problem Unit" on page 6-5. |
| | get quick and efficient service, provide as much information as sible, such as: |
| | Error messages Error codes Recurring or intermittent errors |
| | lso helps if you can describe how to re-create the problem, and v the system operates when free of errors. |
| For | your convenience, write down service phone numbers here: |
| | |
| | |

Appendix A. Using the SCSI Support Software

Highlight -

Adaptec EZ-SCSI configures the SCSI devices installed in your SelectaDock system. It analyzes your SCSI configuration, copies applications and device drivers to the hard disk, and adjusts configuration files automatically. After you install EZ-SCSI, your computer is ready to use all the SCSI features.

This appendix contains:

| Installing the EZ-SCSI | A-2 |
|--------------------------------|-----|
| Installing EZ-SCSI for Windows | A-3 |
| Installing EZ-SCSI for DOS | A-4 |
| Online Information | A-5 |
| Formatting Utilities | A-5 |
| Running SCSIFMT | A-7 |
| Running AFDISK | A-9 |

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Installing the EZ-SCSI

The EZ-SCSI gives you access to the Adaptec SCSI device drivers and ASPI (advanced SCSI programming interface) managers that make your SCSI devices work efficiently.

This section describes how to install the EZ-SCSI for Windows and DOS.

The SelectaDock Option Diskette includes both a DOS and a Windows version of the program.

If Microsoft Windows 3.1 is installed on your computer

"Installing EZ-SCSI for Windows" on page A-3.

If your system uses DOS but not Windows

"Installing EZ-SCSI for DOS" on page A-4.

Notes:

- 1. If you use an operating system other than DOS or Windows, install the driver for the Adaptec AHA-2940AU adapter.
- 2. The files on the SelectaDock option diskette are compressed. Do not use the DOS COPY command to install them on your computer. (The files are decompressed automatically when you install EZ-SCSI.)

To install Adaptec EZ-SCSI, dock your computer to the SelectaDock system; then follow the instructions depending on the operating system.

Note

If you change your SCSI hardware configuration, you should reinstall Adaptec EZ-SCSI. This allows EZ-SCSI to adjust your configuration files so the appropriate device drivers and other files are loaded into memory.

For example, if you reinstall EZ-SCSI after connecting a CD-ROM drive to your SCSI port, the CD-ROM device driver is added to your configuration files and the correct drive letter is assigned to the new device.

Installing EZ-SCSI for Windows

Follow these steps to install Adaptec EZ-SCSI for Windows:

Note: Dock your computer to the SelectaDock system; then follow the instructions depending on the operating system.

- 1 Start Windows.
- 2 Insert the SelectaDock option diskette into the diskette drive.
- 3 Select File and Run from the Program Manager menu bar. When the Run dialog box appears, enter a:\setup if you are using the A drive, or b:\setup if you are using the B drive.
- **4** Click on **OK**. A message appears while Adaptec EZ-SCSI loads into memory.
- **5** Click on **Install Adaptec EZ-SCSI** to continue with the installation.
 - Click on **Help** on any screen to view more information. To close a Help window, select **File** and **Exit**, or double-click on the control-menu box in the upper left corner of the window.
- 6 Follow the instructions that appear on the screen. Click on Continue, Install, or OK to continue with the installation and accept the EZ-SCSI default values. Follow the instructions on

the screen if you want to copy the files to a different directory or control the changes to your configuration files.

You have finished installing the EZ-SCSI.

Installing EZ-SCSI for DOS

The DOS version of EZ-SCSI also includes several formatting utilities and an audio CD-player application.

Note

Adaptec EZ-SCSI for DOS does not install any Windows applications, nor does it install ASPI for Windows. If Microsoft Windows 3.1 is installed on your computer, follow the instructions in "Installing EZ-SCSI for Windows" on page A-3.

Follow these steps to install Adaptec EZ-SCSI for DOS:

Note: Dock your computer to the SelectaDock system; then follow the instructions depending on the operating system.

- 1 Insert the SelectaDock option diskette into the diskette drive on your computer.
- 2 At the DOS prompt, change to the drive letter where you inserted the diskette (either A or B).
- **3** Type dosinst and press Enter. A message appears while Adaptec EZ-SCSI loads into memory.
- **4** Press **Enter** to continue with the installation.
- **5** Follow the instructions that appear on the screen. Press **Enter** at each screen to accept the EZ-SCSI default values. (Press Esc to continue after EZ-SCSI enters changes to your system configuration files.)

If you want to copy the files to a different directory or control the changes to your configuration files, follow the instructions on the screen. Press F1 at any window to see more information.

6 When you see the final screen and the message Adaptec EZ-SCSI has been successfully installed..., press Enter or **Esc** to exit EZ-SCSI. Then restart your computer.

You have finished installing the EZ-SCSI.

Online Information

Adaptec EZ-SCSI has online information about EZ-SCSI features and your SCSI devices. Here is a brief description of this information.

In the Windows environment, you can view these applications or files by double-clicking on their icons in the Adaptec SCSI group.

Adaptec SCSI Interrogator (Windows Only) -

You can see the information about the SCSI devices on your system. When you double-click on the icon that represents the device, the following information appears:

Supported features Manufacturer Model number Storage capacity

You can also lock, unlock, and eject media in removable-media drives.

For more information, see the online help.

Formatting Utilities

Adaptec EZ-SCSI includes the SCSIFMT and AFDISK formatting utilities. These utilities are copied to your hard disk when you install either the DOS or Windows version of EZ-SCSI.

| Command | Feature |
|-----------|---|
| SCSIFMT | SCSIFMT is a low-level formatting utility for SCSI hard disks, removable media, diskette drives, and magneto-optical drives. You can also use SCSIFMT to scan a disk drive for surface defects before you store data on it. |
| | You must exit Windows before running SCSIFMT. You cannot run the utility from the Windows MS-DOS prompt. |
| | *Running SCSIFMT" on page A-7. |
| SCSIFMT/L | You can use this command when you start SCSIFMT from the DOS prompt to format SCSI disk drives that support more than one logical unit. |
| AFDISK | AFDISK is a formatting utility for SCSI hard disks, removable media, and magneto-optical drives. You can use AFDISK to: |
| | Format SCSI hard disk drives Format removable media in standard hard disk format, OS/2 floppy format, or DOS/V format Add or delete partitions created with the DOS FDISK utility Delete non-DOS partitions |
| | Use AFDISK, not the DOS FDISK utility, to partition SCSI disk drives that are not managed by the host adapter BIOS (basic input/output system). |
| | Use the DOS FDISK utility, not AFDISK, to format or partition devices that are controlled by the host adapter BIOS. |
| | Partitions created with AFDISK can be accessed when you boot your computer with the ASPIDISK driver. Partitions created with AFDISK are compatible with DOS partitions. After you partition a disk drive with AFDISK, run the DOS FORMAT utility on the device before you use it. This helps to ensure that the disk media is free of defects. |
| | *Running AFDISK" on page A-9. |

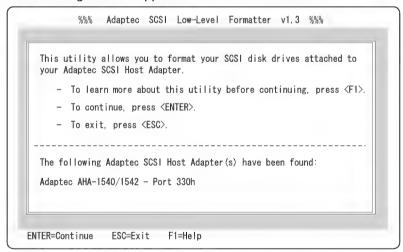
Running SCSIFMT

- 1. Before you run SCSIFMT, make sure the disk drives you want to format are connected to your host adapter and power is turned on. If you want to format a removable medium, make sure it is in the disk drive.
- 2. Press F1 to view online Help information for any SCSIFMT window. Press Esc to exit the Help window.

Run the SCSIFMT as follows:

1 Change to the directory where SCSIFMT.EXE is located (the default directory is C:\SCSI), and type scsifmt to start the program.

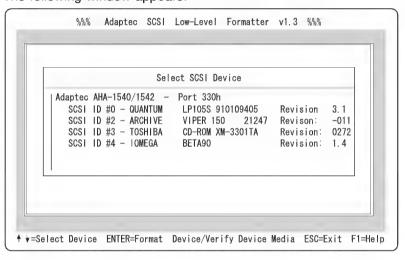
The following window appears:



SCSIFMT scans your computer for Adaptec SCSI host adapters and displays information about them at the bottom of the window. In the preceding window SCSIFMT found an AIC-7870 Family Adapter at bus #7, slot #1.

 $oldsymbol{2}$ Press **Enter** to continue. (You can also press **F1** to view a Help window or press **Esc** to exit SCSIFMT.)

The following window appears:



- **3** Use the Up and Down Arrow keys (↑ or ↓) to select a disk drive; then press **Enter**.
- 4 When the next window appears, select one of the following:

Format the disk drive
Verify Scan the disk drive for defects

then press Enter.

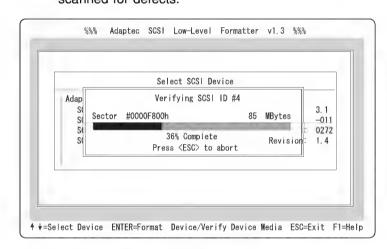
Attention

A low-level format erases all data from the disk. Back up important data on the disk drive before you format it!

If you selected **Format**, verify that you want to format the disk (or abort the Format option); then wait while SCSIFMT formats the disk device. This may take a long time for a large-capacity disk drive.

If you select **Verify**, verify that you want to scan the disk media for defects (or abort the Verify option). A window similar to the following appears:

Note: You can press **Esc** at any time to abort this process. This does not damage the disk; it just



stops the operation before the entire disk has been scanned for defects.

If SCSIFMT finds defects on the disk, it displays information about the defects. It allows you to reassign the bad blocks on the disk drive to prevent data from being stored there.

5 Repeat steps 3 and 4 as needed, to format or verify other disk drives.

When you are finished, press Esc to exit SCSIFMT.

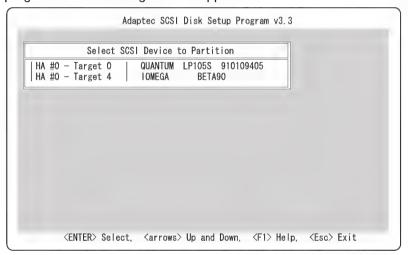
Running AFDISK

Notes:

- Before you run AFDISK, be sure the disk drives you want to format or partition are connected to your host adapter and are turned on. If you have a removable-media drive, be sure that medium is inserted in the drive.
- You must close Windows completely before running AFDISK. You cannot run the utility from the Windows MS-DOS prompt.
- 3. Press **F1** to view online help information for any AFDISK window. Press **Esc** to exit the help window.

Run the AFDISK as follows:

1 Change to the directory where AFDISK.EXE is located (the default directory is C:\SCSI), and enter afdisk to start the program. The following window appears:



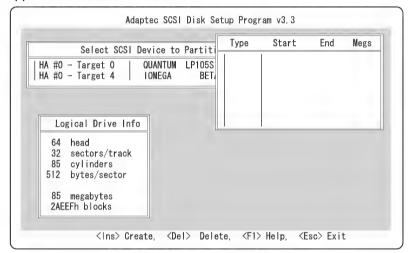
AFDISK lists all installed SCSI disk drives, including removable-media drives and SCSI devices controlled by the host adapter BIOS. Reading from left to right, the following information is listed for each device:

HA # The host adapter number. This number is zero if the computer has a single host adapter.

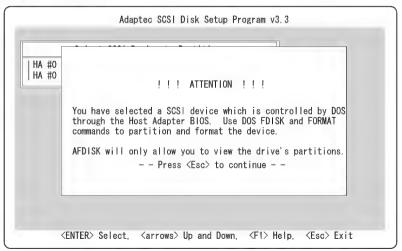
Target # The device's SCSI ID number.

Drive ID The SCSI device's vendor name and product identification.

2 Use the Up and Down Arrow keys (↑ or ↓) to select a disk drive; then press Enter. A window similar to the following appears if the disk is formatted:



If the selected device is controlled by the host adapter BIOS, AFDISK displays a panel similar to the following. You can view information for this device, but you cannot change its partitions with AFDISK.



If the disk media is unformatted, you must format it before you can create partitions. To do this, follow the instructions on the window. Read the AFDISK online Help, which explains the available formatting options.

If you select a removable-media device with a diskette format, such as a magneto-optical (MO) device, AFDISK asks if you want to delete the diskette format. Select No, unless you want to reformat the medium in a different format.

If the disk medium is formatted, AFDISK displays information about the selected physical drive in the lower left corner of the window, as shown in the following figure. The following table shows the translation schemes used by Adaptec SCSI host adapters:

| Drive Capacity | Translation Scheme | Number of Cylinders |
|-------------------|---------------------------------|--|
| Less than 1 GB | 64 heads, 32 sectors per track | Equal to the number of megabytes of available capacity |
| Greater than 1 GB | 255 heads, 63 sectors per track | One cylinder per 8 MB of available capacity |

Partitions that currently exist on the drive appear in the upper right corner of the window. (The example shown in the previous figure has no partitions.) Select a partition with the Up and Down Arrow keys (↑ or ↓). To delete a partition, press Del and select Yes at the prompt.



3 To create a new partition, press Ins. The following window:

The Create a DOS Partition window at the lower right suggests by default that you create one partition equal to the total capacity of the disk drive, which in this example is 85 MB. (Each cylinder equals 1 MB; cylinders are numbered 0 through

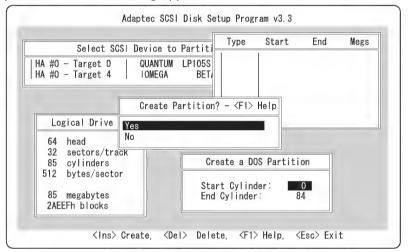
If you want just one partition on the disk drive, skip to step 5.

4 To change the Start Cylinder and End Cylinder values, select them with the Up and Down Arrow keys (↑ or ↓) and specify different values.

You need to change these values if you want to create multiple partitions on the disk drive. In this example, you could change the End Cylinder number to 44 to create a 45-MB partition. Then you could create a 40-MB partition for cylinders 45 through 84. Each partition would then be assigned a different drive letter, such as E and F.

Note: AFDISK displays an error message if you try to enter invalid values, such as a number greater than the actual number of cylinders on the disk.

5 When you have entered the number of cylinders you want, press Esc. The following appears:

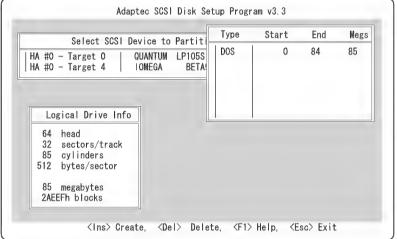


 $\boldsymbol{6}$ To create the partition, select $\boldsymbol{Yes};$ then press $\boldsymbol{Enter}.$

If you want to create more partitions, press Ins and repeat steps 3, 4, and 5.

There are limits to the size of the partition, depending on which version of DOS you are using. For IBM 6.3 and later, 2.1 GB/partition to a maximum of 1 GB/drive.

As you create partitions, AFDISK displays them in the upper right, as shown in the following figure: Adaptec SCSI Disk Setup Program v3.3



- **7** Press **Esc** to return to the Select SCSI Device to Partition window. If you want to format a different disk drive or create partitions on it, select the device from the list.
- 8 To quit AFDISK, press Esc and select Yes when you are asked if you want to quit.

If you have changed the disk partitions, a message reminds you that you must restart your computer before you can access the newly created partitions.

Note: To add or delete disk partitions, reinstall EZ-SCSI to update the system configuration.

Appendix B. Specifications

The SelectaDock III system has the following specifications. The IBM power cord part numbers available in each country are listed in "IBM Power Cords" on page B-4.

Physical Characteristics

| Depth | | 418.5 mm (16.5 in.) |
|--------|-------|---------------------|
| Height | Front | 85.5 mm (3.4 in.) |
| | Rear | 139.7 mm (5.5 in.) |
| Width | | 393.3 mm (15.5 in.) |
| Weight | | 7.3 kg (16.1 lbs) |

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Environmental Requirements

Temperature, Relative Humidity, and Wet Bulb Temperature

| Operating environment | Temperature | 5°C to 35°C (41°F to 95°F) |
|--------------------------|-------------------|----------------------------------|
| | Relative humidity | 8% to 95% (noncondensing) |
| | Maximum wet bulb | 29.4°C (85°F) |
| Nonoperating environment | Temperature | 5°C to 43°C (41°F to 110°F) |
| | Relative humidity | 8% to 95% (noncondensing) |
| | Maximum wet bulb | 29.4°C (85°F) |
| Storage environment | Temperature | -20°C to 60°C (-4°F to 140°F) |
| | Relative humidity | 5% to 95% (noncondensing) |
| | Maximum wet bulb | 29.4°C (85°F) |

Maximum Altitude

2435 m (8000 ft) in unpressurized conditions

Electrical Characteristics

| Heat output | t output Base configuration | | 181 BTUs/hr † |
|--|-----------------------------------|---------------|--|
| N | Maximum | configuration | 555 BTUs/hr |
| input (50 or 60 Hz) | Low range | Minimum | 100 V ac |
| | | Maximum | 125 V ac |
| | High | Minimum | 200 V ac |
| | range | Maximum | 240 V ac |
| Input kilovolt-amperes (k VA) (approximately) | Configuration as shipped from IBM | | 0.053 k VA |
| | Maximum configuration | | 0.163 k VA |
| Power cord | | | See "IBM Power Cords" on page B-4. |

Notes:

- British thermal units per hour
- This product is also designed for an IT power system with phase-to-phase voltage not exceeding 240 V ac.

External Interfaces

| SCSI port | SCSI-2 50-pin, high density |
|----------------------|---|
| Game port | D-sub 15-pin female |
| Line-out | Stereo mini jack 3.5 mm |
| Speaker-in | Stereo mini jack 3.5 mm |
| Headphone | Stereo mini jack 3.5 mm |
| PCMCIA slots | Accept two Type I or Type II PC Cards, or one Type III PC Card |
| PCI/ISA shared slots | Three 32-bit PCI bus connectors; two 16-bit ISA bus connectors |

IBM Power Cords

For your safety, IBM provides a power cord with a grounded attachment plug to use with this IBM product. To avoid electrical shock, always use the power cord and plug with a correctly grounded outlet.

IBM power cords used in the United States and Canada are listed by Underwriters Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length, and a parallel blade, grounding-type attachment plug rated 15 amperes, 125 volts.

For units intended to be operated at 230 volts (in the U.S.): Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length, a tandem blade, grounding-type attachment plug rated 15 amperes, 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding-type attachment plug rated 15 amperes (minimum), 250 volts. The cord set should be marked <HAR> and have the appropriate safety approvals for the country in which the equipment will be installed. IBM power cords for a specific country are usually available only in that country:

| IBM Power Cord Part Number |
|----------------------------------|
| 14F0033 |
| 14F0033 |
| 14F0033 |
| 13F9940 |
| 13F9940 |
| 13F9979 |
| |

| Country | IBM Power Cord |
|------------|-------------------|
| | Part Number |
| Bahamas | 13F9959 |
| Bahrain | 14F0033 |
| Bangladesh | 14F0015 |
| Barbados | 13F9959 |
| Belgium | 13F9979 |
| Bermuda | 13F9959 |
| | |

| Country | IBM Power Cord Part Number |
|----------------|----------------------------------|
| Bolivia | 13F9959 |
| Brunei | 14F0033 |
| Bulgaria | 13F9979 |
| Canada | 13F9959 |
| Cayman Islands | 13F9959 |
| Chile | 14F0069 |

| 0 | IBM Power | |
|--------------------|---------------------|--|
| Country | Cord Part Number | |
| Colombia | 13F9959 | |
| Costa Rica | 13F9959 | |
| Czech Republic | 13F9979 | |
| Denmark | 13F9997 | |
| Dominican Republic | 13F9959 | |
| Dubai | 14F0033 | |
| Ecuador | 13F9959 | |
| Egypt | 13F9979 | |
| El Salvador | 13F9959 | |
| Fiji | 14F0033 | |
| Finland | 13F9979 | |
| France | 13F9979 | |
| Germany | 13F9979 | |
| Greece | 13F9979 | |
| Guatemala | 13F9959 | |
| Guyana | 13F9959 | |
| Haiti | 13F9959 | |
| Honduras | 13F9959 | |
| Hong Kong | 14F0033 | |
| Hungary | 13F9979 | |
| Iceland | 13F9979 | |
| India | 14F0033 | |
| Indonesia | 13F9979 | |
| Ireland | 14F0033 | |
| Israel | 14F0087 | |
| Italy | 14F0069 | |
| Jamaica | 13F9959 | |
| Japan | 13F9959 | |
| Kenya | 14F0033 | |
| Korea (South) | 13F9959 | |
| Kuwait | 14F0033 | |
| | | |

| | IBM Power |
|----------------------------|---------------------|
| Country | Cord Part Number |
| Macao | 14F0033 |
| | 14F0033 14F0033 |
| Malaysia | |
| Mexico | 13F9959 |
| Netherlands | 13F9979 |
| Netherlands Antilles | 13F9959 |
| New Guinea | 13F9940 |
| New Zealand | 13F9940 |
| Nicaragua | 13F9959 |
| Nigeria | 14F0033 |
| Norway | 13F9979 |
| Oman | 14F0033 |
| Pakistan | 14F0015 |
| Panama | 13F9959 |
| Papua New Guinea | 13F9940 |
| Paraguay | 13F9940 |
| People's Republic of China | 14F0033 |
| Peru | 13F9959 |
| Philippines | 13F9959 |
| Poland | 13F9979 |
| Portugal | 13F9979 |
| Qatar | 14F0033 |
| Romania | 13F9979 |
| Saudi Arabia | 13F9959 |
| Singapore | 14F0033 |
| South Africa | 14F0015 |
| Spain | 13F9979 |
| Sri Lanka | 14F0015 |
| Suriname | 13F9959 |
| Sweden | 13F9979 |
| Switzerland | 14F0051 |
| | 1470031 |

| Country | IBM Power Cord Part Number |
|---------------------------|----------------------------------|
| Taiwan | 13F9959 |
| Thailand | 1838574 |
| Trinidad (West Indies) | 13F9959 |
| Turkey | 13F9979 |
| U.K. | 14F0033 |
| Uruguay | 13F9940 |
| U.S. | 13F9959 |
| Venezuela | 13F9959 |
| former Yugoslavia | 13F9979 |
| | |

Appendix C. Product Warranty, Notices, and Statements

| This appendix contains a product warranty and: | |
|---|-----|
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Statement of Limited Warranty

The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or an IBM authorized reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Machines are subject to these terms only if purchased in the United States or Puerto Rico, or Canada, and located in the country of purchase. If you have any questions, contact IBM or your reseller.

Machine: SelectaDock III Warranty Period*: One year

*Elements and accessories are warranted for three months. Contact your place of purchase for warranty service information.

Production Status

Each Machine is manufactured from new parts, or new and serviceable used parts (which perform like new parts). In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

The IBM Warranty

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications. IBM calculates the expiration of the warranty period from the Machine's Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period, IBM or your reseller will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine. IBM or your reseller will specify the type of

For a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade. Some of these transactions (called "Net-Priced" transactions) may include additional parts and associated replacement parts that are provided on an exchange basis. All removed parts become the property of IBM and must be returned to IBM.

Replacement parts assume the remaining warranty of the parts they replace.

If a Machine does not function as warranted during the warranty period. IBM or your reseller will repair or replace it (with a Machine that is at least functionally equivalent) without charge. If IBM or your reseller is unable to do so, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user.

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at 1-800-772-2227. In Canada, call IBM at 1-800-565-3344. You may be required to present proof of purchase. Depending on the Machine, the service may be 1) a "Repair" service at your location (called "On-site") or at one of IBM's or a reseller's service locations (called "Carry-in") or 2) an "Exchange" service, either On-site or Carry-in. When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced.

It is your responsibility to:

- 1. obtain authorization from the owner (for example, your lessor) to have IBM or your reseller service a Machine that you do not
- 2. where applicable, before service is provided
 - a) follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
 - b) secure all programs, data, and funds contained in a Machine.
 - c) inform IBM or your reseller of changes in a Machine's location, and
 - d) for a Machine with exchange service, remove all features, parts, options, alterations, and attachments not under warranty service. Also, the Machine must be free of any legal obligations or restrictions that prevent its exchange; and
- 3. be responsible for loss of, or damage to, a Machine in transit when you are responsible for the transportation charges.

Extent of Warranty

IBM does not warrant uninterrupted or error-free operation of a Machine. Misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, or failure caused by a product for which IBM is not responsible may void the warranties.

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- 2. the amount of any other actual loss or damage, up to the greater of \$100,000 or the charge for the Machine that is the subject of the claim.

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Federal Communications Commission (FCC) Statement

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian Department of Communications Compliance Statement

This equipment does not exceed Class B limits per radio noise emissions for digital apparatus, set out in the Radio Interference Regulation of the Canadian Department of Communications.

Avis de conformité aux normes du ministère des Communications du Canada

Cet équipement ne dépasse pas les limites de Classe B d'émission de bruits radioélectriques pour les appareils numériques, telles que prescrites par le Règlement sur le brouillage radioélectrique établi par le ministère des Communications du Canada.

European Community (EC) Directive Conformance Statement

This product is in conformity with the protection requirements of EC Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

A Declaration of Conformity with the requirements of the Directive has been signed by IBM Japan Limited, 1623-14, Shimotsuruma, Yamato-shi, Kanagawa-ken, 242, Japan.

This Product satisfies the Class B limits of EN 55022.

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